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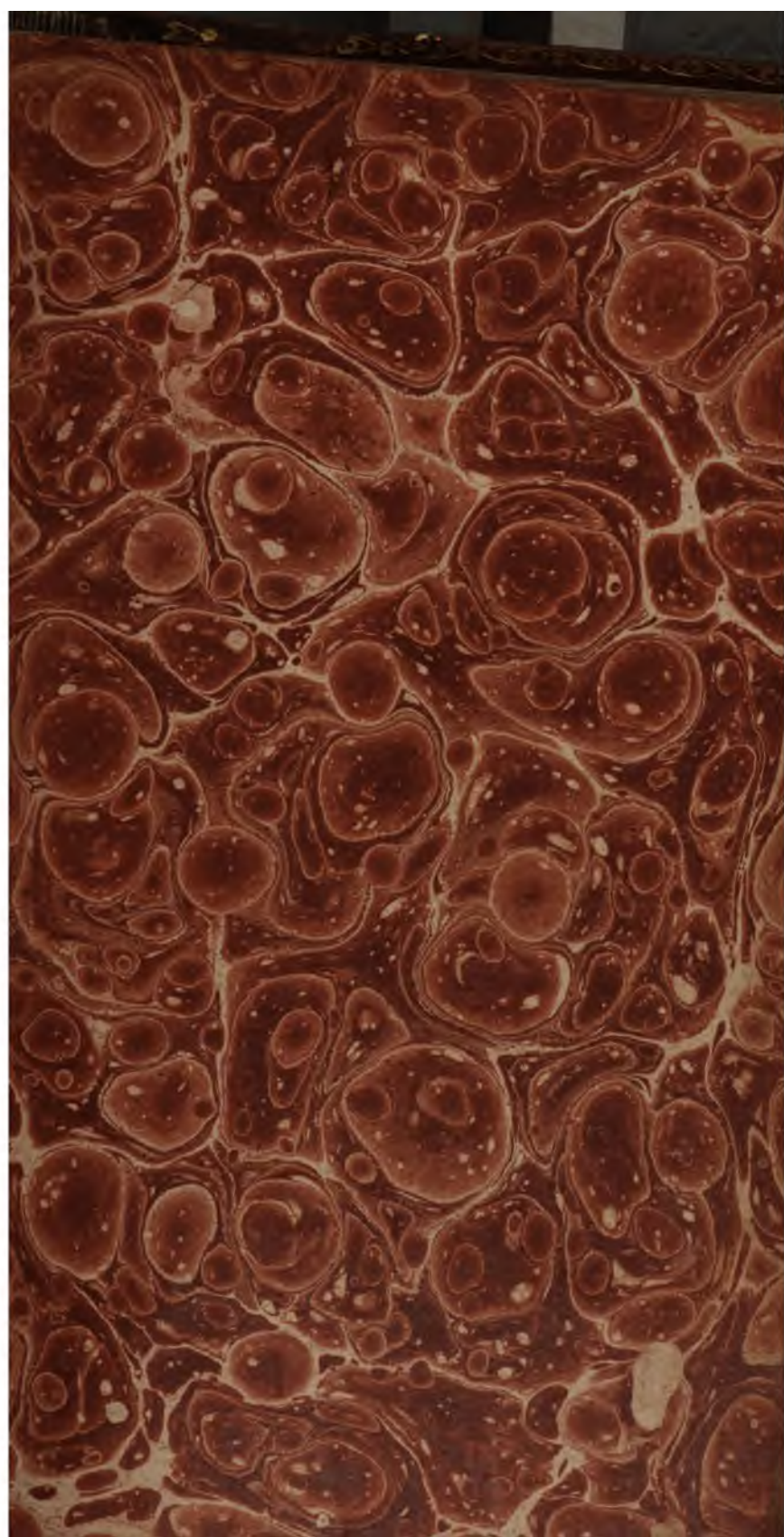


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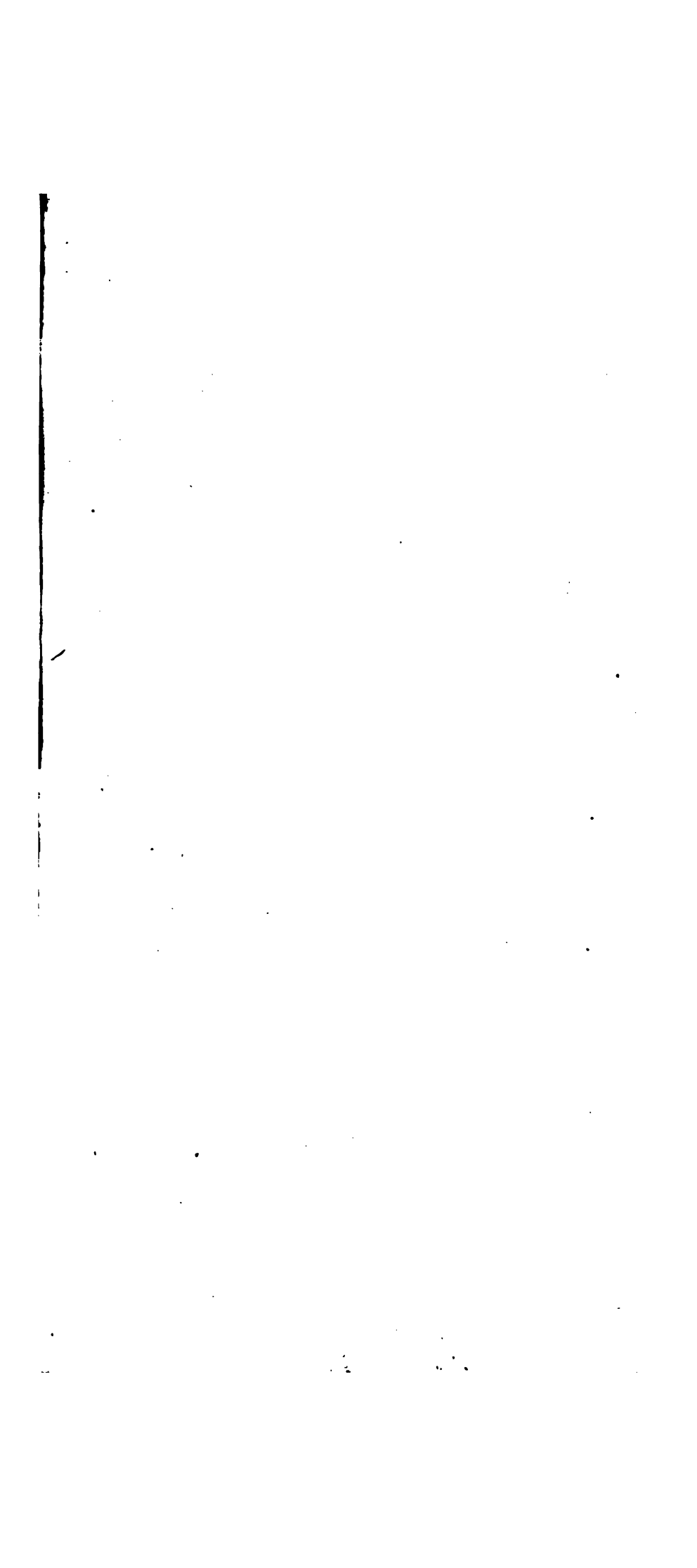
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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS,
AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE
ACADEMIES OF STOCKHOLM, UPSAL, TURIN,
LISBON, LUND, BERLIN, PHILADELPHIA, AND
THE NAT. HIST. SOCIETY OF PARIS;
PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

—“VIRESCERE ACQUIRIT EUNDO.”—VIRG.

VOL. VIII.

L O N D O N :

Printed by J. DAVIS ; and sold by the Proprietor, J. SOWERBY,
at No. 2, Mead Place, Lambeth ; by Messrs. WHITE, Fleet-
street ; JOHNSON, St. Paul's Church-yard ; DILLY,
in the Poultry ; and by all Booksellers, &c.
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MDCCXCIX.

STATE OF NEW YORK

IN SENATE

JANUARY 11, 1900

REPORT OF THE COMMISSIONERS OF THE LAND OFFICE
IN RESPONSE TO A RESOLUTION PASSED BY THE SENATE
MAY 10, 1899

ALBANY: J. B. LEECH, 1899

ALBANY: J. B. LEECH, 1899

THE COMMISSIONERS OF THE LAND OFFICE
AND THE COMMISSIONERS OF THE SURVEY
AND THE COMMISSIONERS OF THE DEPARTMENT OF AGRICULTURE
AND THE COMMISSIONERS OF THE DEPARTMENT OF MINES
AND THE COMMISSIONERS OF THE DEPARTMENT OF THE INTERIOR

ALBANY: J. B. LEECH, 1899

ALBANY: J. B. LEECH, 1899



A J U G A reptans.

Common Bugle.

DIDYNAMIA *Gymnospermia.*

GEN. CHAR. Upper lip of the *Corolla* very minute, and much shorter than the stamina.

SPEC. CHAR. Herb smooth. Stem solitary, throwing out creeping scyons.

SYN. *Ajuga reptans.* *Linn. Sp. Pl.* 785. *Huds.* 248. *With.* 517. *Relb.* 220. *Sibth.* 180. *Curt. Lond. fasc.* 2. t. 43.

Bugula. *Raii Syn.* 245.

COMMON in woods and moist pastures, flowering in May.
Root perennial, with many strong fibres. Stem always solitary, erect, about a foot high, square, leafy, simple, but throwing out several procumbent roundish leafy scyons, which spread in all directions to a considerable extent, and take root here and there at the insertion of their leaves. By these scyons the plant now before us is known from *A. alpina*, t. 477, and every other species. Leaves opposite, ovate, scolloped, tapering



Primula veris L. *Primula veris L.*



A J U G A alpina.

*Alpine Bugle.*DIDYNAMIA *Gymnospermia.*

GEN. CHAR. Upper lip of the *Corolla* very minute, and much shorter than the stamina.

SPEC. CHAR. Stem simple. Leaves almost smooth, irregularly toothed, all nearly of a size. Whorls not crowded, of many flowers.

SYN. *Ajuga alpina.* *Linn. Mant.* 80.

A. genevensis. *With.* 516. *Scholler Fl. Barb.* 135.

A. pyramidalis. *Huds.* 248.

Bugula cærulea alpina. *Pluk. Phyt. t.* 18. *f.* 3.
Raii Syn. 245.

WE have received a specimen of this plant from Durham by favour of Mr. Robson, and another gathered by Mr. Dawson Turner, in July 1795, on the summit of a mountain near Castleton, Derbyshire. There is no doubt of its being the *A. alpina* of Linnæus, as his description and numerous specimens prove; notwithstanding great variations to which it is liable in the upper leaves, which are sometimes quite entire, or slightly waved, at other times furnished with a few large deep indentations or lobes.

The root is perennial, with long fibres. Stems simple, erect, near a foot high, destitute of running scyons at the base, angular, slightly hairy, leafy; the pairs of leaves and the whorls are rather distant, by no means crowded into a pyramidal form as in *A. pyramidalis*, nor are the radical leaves (as in that species) 3 or 4 times as large as those on the stem, and very hairy; but, on the contrary, the lower leaves are but little larger than the others, and all very nearly smooth, veiny, unequally toothed. The bractæ are sometimes quite entire, sometimes toothed; the uppermost only tinged with purple; whereas in *A. pyramidalis*, they are all reddish. Flowers from 10 to 20 in each whorl. Calyx chiefly hairy at the teeth. Flowers pale, streaked with deeper blue.—The real *A. genevensis* of Linnæus, in his herbarium, is very woolly, and more densely spiked than our plant, with leaves rather crenate than toothed. Yet we by no means certain of its being more than a variety. Whether the *pyramidalis* be also a British plant, we have not yet authoritatively determined.



Salvia officinalis L.





AJUGA pyramidalis.

Pyramidal Bugle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *Corolla* very minute, and much shorter than the stamina.

SPEC. CHAR. Hairy. Whorls crowded into a pyramidal form, many-flowered. Radical leaves very large, obovate, crenate, obtuse.

SYN. *Ajuga pyramidalis.* *Linn. Sp. Pl.* 785. *Lightf.* 302. *With.* 516. *Hull.* 131. *Fl. Dan. t.* 185.

THE doubt expressed in *p.* 477 of this work, whether *A. pyramidalis* be really found in Britain as reported in the *Fl. Scotica*, is now removed by the fine wild specimens for which we are obliged to J. Brodie, Esq. of Brodie. They were gathered on *Tore Aichaltie*, a hill near *Braban* castle, the seat of





A J U G A Chamæpitys.

Ground Pine.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *Corolla* very minute, and much shorter than the stamina.

SPEC. CHAR. Leaves three-cleft, linear, entire. Flowers sessile, lateral, solitary. Stem diffuse.

SYN. *Teucrium Chamæpitys*. *Linn. Sp. Pl.* 787. *Huds. Fl. An.* 247. *With. Bot. Arr.* 590. *Relb. Cant.* 220. *Dicks. Dr. Plants*, 9.

Chamæpitys vulgaris. *Raii Syn.* 244.

Bugula foliis imis linearibus, caulinis tripartitis. *Hall. Hist. n.* 284.

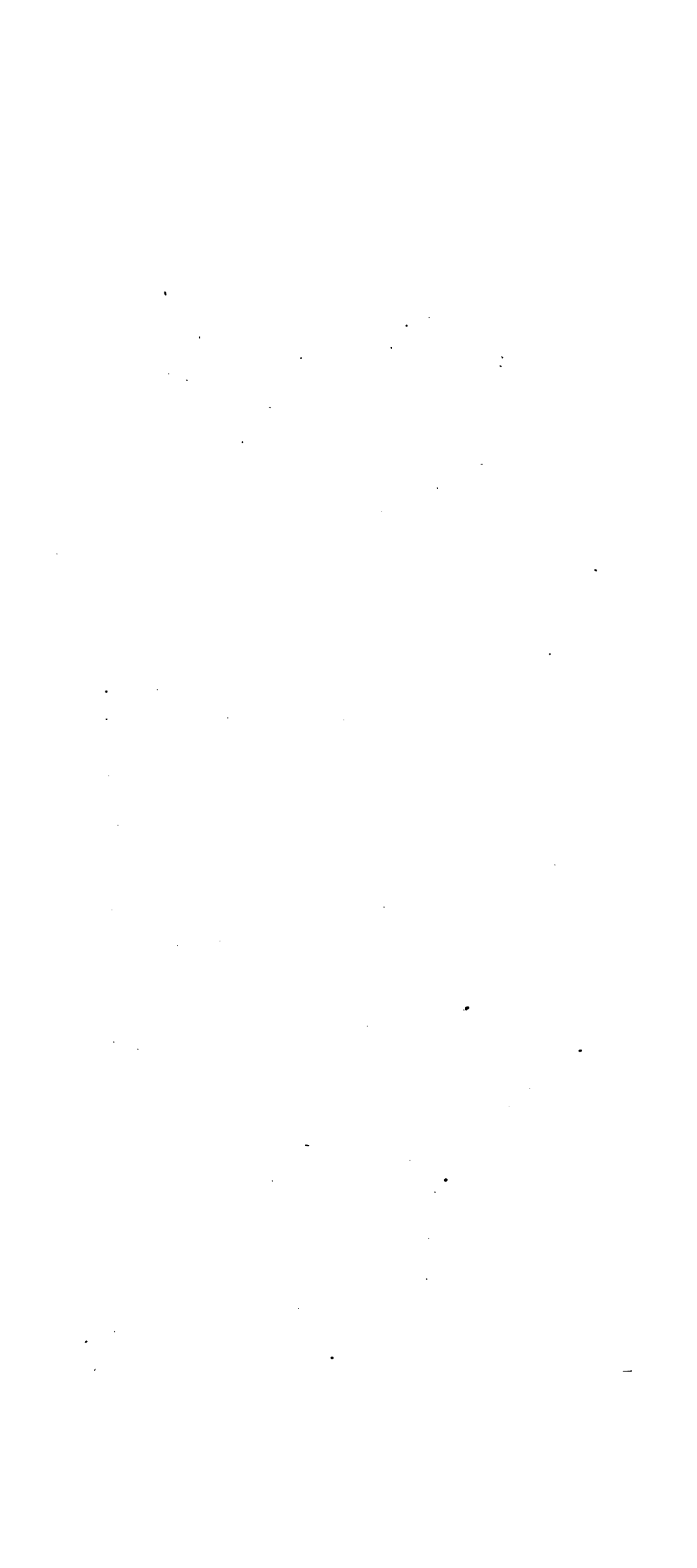
COMMUNICATED by Mr. Edward Forster, junior, and Mr. Jacob Rayer, from Purfleet in Essex, in April and May last. It abounds in sandy fields in Kent and Surry, but is otherwise a scarce plant.

Root small, branched, annual. Stems much branched, spreading, square, often reddish. The first two or three leaves are entire; all the rest deeply three-cleft. The whole herb hairy, viscid, aromatic, and bitter. The corolla differs in structure from the genuine species of *Teucrium*; for the upper lip, instead of being deeply divided and divaricated, with the stamina projecting between its lobes, is very short and notched, exactly as it ought to be in *Ajuga*, to which genus, called by him *Bugula*, it is therefore referred by Haller. Owing no implicit obedience to any system or laws but those of truth and nature, as far as they are discernible, we adopt his alteration * because we think it a good one. In support of his opinion he quotes Guettard, who indeed says this plant is no *Teucrium*, but who would restore Tournefort's genus of *Chamæpitys*, only calling it *Iva* with Rivinus. Tournefort's reason for separating *Chamæpitys* from *Ajuga* (his *Bugula*) is, that its flowers are solitary, whereas those of *Ajuga* are verticillated; but this is a most trifling and unscientific difference, and not strictly constant. Guettard and La Marck (*Encycl.* 501) say, the true *Ajugas* are distinguished from the *Teucriums* by not having the calyx swelled on one side as the fruit ripens. This however is not true, witness *A. alpina* and *pyramidalis*, nor would it signify if it were. It must be acknowledged indeed, that the habit of *Chamæpitys* is unlike that of the *Ajugas* of Linnæus; but his *Teucrium Iva*, which belongs to the same genus, is the connecting link between them, by its pubescence and the denticulation of its leaves approaching *Ajuga alpina*, which is moreover a bitter aromatic plant.

* As Prof. Schreber has done, *Plant. Vertic. Unilab.* 19.







TEUCRIUM Scorodonia.

Wood Germander, or Wood Sage.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *corolla* divided down below its base and divaricated. *Stam.* projecting above it.

SPEC. CHAR. Leaves heart-shaped, serrated, on footstalks. Stem erect. Flowers leaning to one side, in lateral and terminal clusters.

SYN. *Teucrium Scorodonia.* *Linn. Sp. Pl.* 789. *Sm. Fl. Brit.* 606. *Huds.* 248. *With.* 518. *Hull.* 130. *Relh.* 224. *Sibth.* 180. *Abbot.* 125. *Curt. Lond. fasc. 5. t. 40.*

Scorodonia, seu Salvia agrestis. *Raii Syn.* 245. *Ger. em.* 662.

VERY plentiful in dry heathy places, about banks and copses, where its pale yellow blossoms with their purple projecting stamina are to be seen in abundance in July and August.

The roots are creeping and perennial. Stems erect, a foot or two in height, leafy, square, harsh and hairy; bearing 1 terminal and several lateral simple clusters, or spikes, of opposite flowers, all which lean one way, and have a pair of ovate bractæ at the base of their partial stalks. Leaves on footstalks, opposite, heart-shaped, serrated or sharply crenate, rough, rugged, of a darkish green.

The whole plant is bitter, somewhat viscid, with a strong scent like hops, which, like them, has sometimes a narcotic effect. It has been recommended as a substitute for hops in making beer, and we believe is one of the most wholesome that can be used, being at least as harmless to the nerves as the plant whose place it is meant to supply, and superior to it in tonic qualities.





TEUCRIUM Scordium.

Water Germander.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *corolla* divided down below its base and divaricated. *Stam.* projecting above it.

SPEC. CHAR. Leaves sessile, oblong, with tooth-like serratures. Flowers axillary, in pairs, on stalks. Stem procumbent.

SYN. *Teucrium Scordium.* *Linn. Sp. Pl.* 790. *Sm. Fl. Brit.* 606. *Huds.* 247. *With.* 519. *Hull.* 130. *Relb.* 219. *Sibth.* 180. *Woodv. Med. Bot. t.* 57. *Scordium, Raii Syn.* 246.

THE officinal *Scordium* has been supposed almost peculiar to the marshes of the Isle of Ely, where it grows in plenty. Mr. Relhan has however observed it in several situations nearer Cambridge, and from thence we received a wild specimen by favour of the Rev. J. Holme. It has moreover a place in the





Salvia officinalis L.

TEUCRIUM Chamædrys.

Wall Germander.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *corolla* divided down below its base and divaricated. *Stamina* projecting above it.

SPEC. CHAR. Leaves on footstalks, somewhat ovate, deeply crenate or cut. Flowers axillary, three together, stalked. Stem round, hairy.

SYN. *Teucrium Chamædrys*. *Lin. Sp. Pl.* 790. *Sm. Fl. Brit.* 607. *Hudsl.* 247. *Witb.* 518. *Sibth.* 179. *Abbot.* 125. *Woodw. Suppl. t.* 243. *Chamædrys vulgaris seu fativa. Raii Syn.* 231.

RAY observed this plant occasionally in the borders of fields remote from buildings, and yet durst not assert it to be indigenous. It seems to have been formerly much cultivated in gardens for medical use, being an approved deobstruent and expectorant, and possibly escaped from thence; for it has certainly no where in England the appearance of a genuine native, though introduced into all our Floras. Its favourite situation is a ruined wall. Sherard found it plentifully on Win-



Salvia nemoralis L. by P. Schumacher del.



NEPETA Cataria.

Nep, or *Cat-mint*.*DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cor.* with the middle segment of its lower lip crenate : orifice with a reflexed margin. *Stamina* approaching each other.

SPEC. CHAR. Flowers spiked ; the whorls slightly pedunculated. Leaves on foot-stalks, heart-shaped, dentato-serrated.

SYN. *Nepeta Cataria.* *Linn. Sp. Pl.* 796. *Huds. Fl. An.* 249. *Witb. Bot. Arr.* 593. *Relb. Cant.* 221. *N. major vulgaris.* *Raii Syn.* 237.

FOUND about hedges and road-sides, in a chalky or gravelly soil, in various parts of England, though seldom very plentifully. It is not unfrequent throughout Norfolk and Suffolk, flowering about the latter part of summer, and thriving well though covered with dust, like *Ballota nigra*.

The root is perennial, long, and thready, of a blackish colour externally. Stems several, two or three feet high, square, clothed with heart-shaped petiolated leaves, which are grossly, and more or less acutely, serrated. Every part, except the corolla, is invested with a soft, short, velvet-like downiness. The calyx is marked with strong green prominent ribs. That represented at the bottom of our plate is accidentally reversed, the shorter teeth being (in nature) the lowermost. The corolla is white or purplish, its lower lip elegantly sprinkled with crimson or purple dots. Its crenated central lobe marks the genus decidedly.

Every part of this herb exhales, when bruised, a pungent aromatic smell, somewhat like penny-royal, with which it is supposed to agree in virtues. Cats delight in this scent almost as much as in the powdered root of *Valeriana officinalis*. Wherever they meet with the *Nepeta*, they entirely destroy it, by chewing the young branches, and rolling themselves upon the plant as long as any smell is left.





VERBENA officinalis.

*Common Vervain.**DIDYNAMIA Gymnospermia.***GEN. CHAR.** *Cor.* funnel-shaped, nearly equal, curved.*Cal.* with 5 teeth, one of them shorter than the rest. *Stam.* 2 or 4. *Seeds* 2 or 4, enclosed in a thin tunic.**SPEC. CHAR.** Stamina four. Spikes slender, panicled.

Leaves deeply cut. Stem mostly solitary.

SYN. *Verbena officinalis.* *Lin. Sp. Pl.* 29. *Sm. Fl.**Brit.* 609. *Huds.* 249. *Witb.* 520. *Hull.* 6.*Relb.* 221. *Sibth.* 181. *Abbot.* 127. *Curt. Lond.**fasc.* 1. t. 41. *Woodv. Suppl.* t. 218.*V. vulgaris.* *Raii Syn.* 236.

NOT unfrequent by road sides, in dry sunny pastures, and waste places about villages, flowering in July.

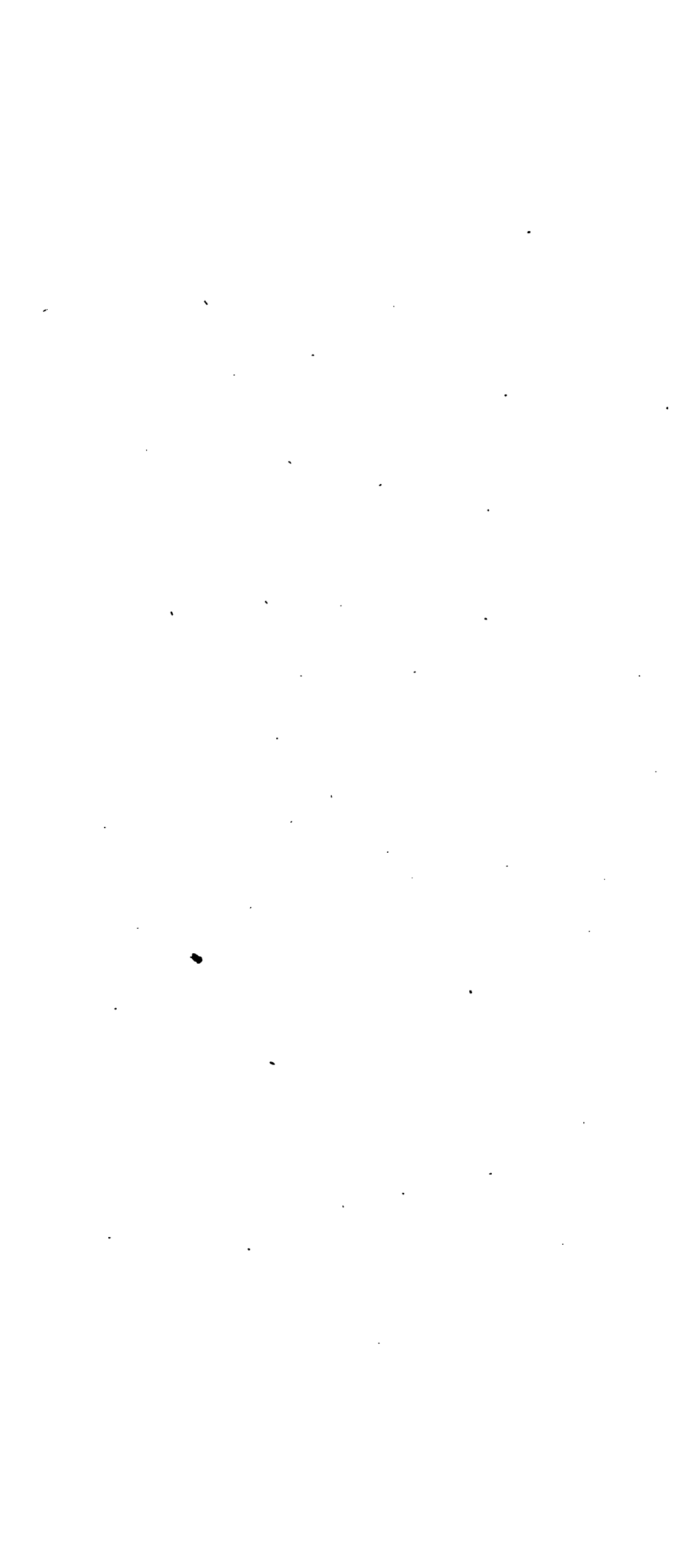
Root perennial, branching, woody. From each of its summits rises a solitary stem, curved at the base, about a foot high, square, leafy, rough with little prickles, panicled at the top

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Salvia officinalis L. *Salvia* L.





MENTHA sylvestris.

Horfe Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* five-cleft. *Cor.* nearly regular, four-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes shaggy, scarcely interrupted. Leaves acute, with deep-toothed serratures, chiefly downy beneath. *Braëteæ* awl-shaped.

SYN. *Mentha sylvestris.* *Linn. Sp. Pl.* 804. *Sm. Fl. Brit.* 609. *Tr. of Linn. Soc.* v. 5. 179. *Hulf.* 250. *Willb.* 521. *Hull.* 125. *Relb.* 222.

M. villosa prima. *Sole Mentb.* 3. t. 1.

Menthastrum spicatum, folio longiore candicante. *Raii Syn.* 234.

NOT unfrequent in waste ground and watery places, flowering in August. The Rev. Mr. Relhan sent it from Cambridgehire.

The root is perennial and creeping, as in the whole genus. Stems 2 to 4 feet high, erect, square, shaggy with hairs point-

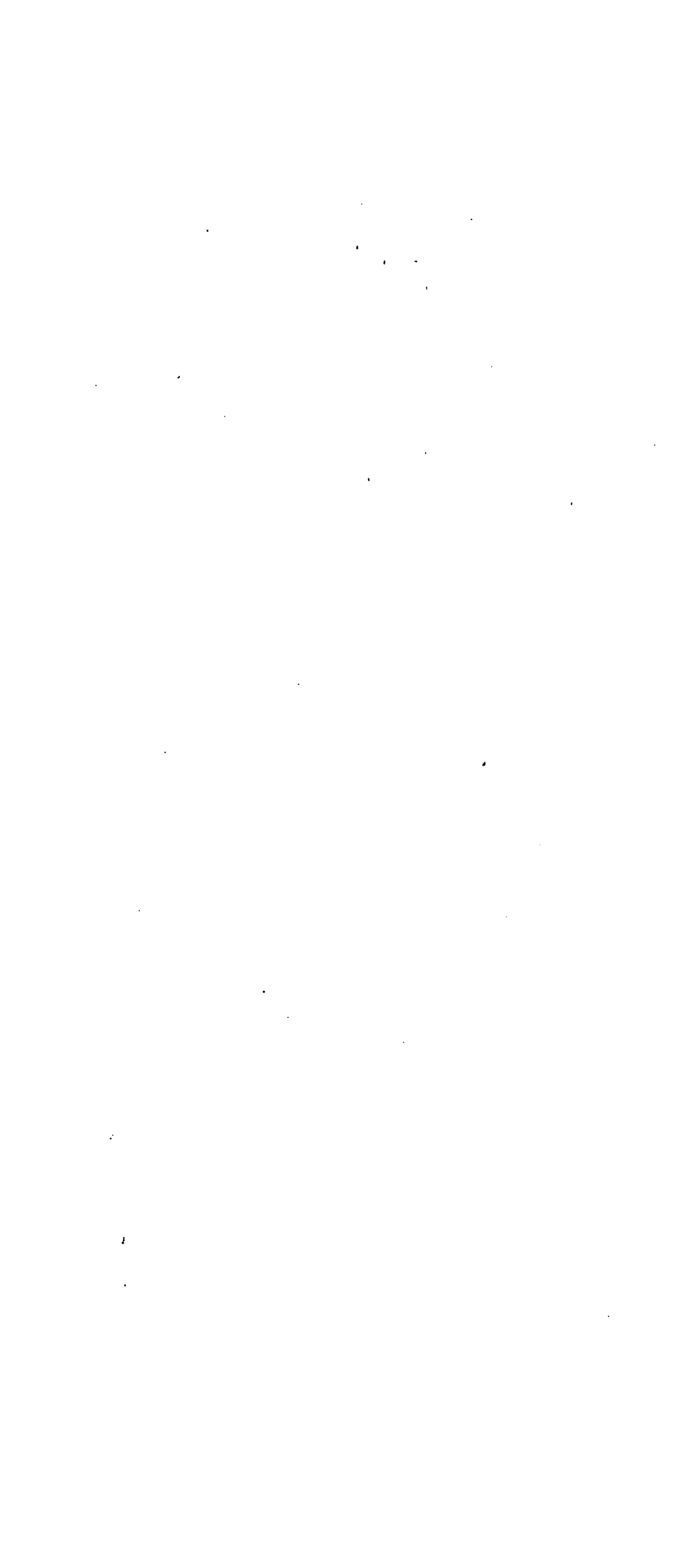


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Salvia mellifera Gray, *Scroph. Labiales*





M E N T H A rotundifolia.
Round-leaved Mint.

D I D Y N A M I A *Gymnospermia.*

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes oblong. Leaves sessile, roundish, rugged, shaggy, sharply crenate. Bractæ lanceolate. *Stamina* longer than the corolla.

SYN. *Mentha rotundifolia.* Linn. *Sp. Pl.* 805. Hudf. 251. *With.* 522.

Menthastrum folio rugoso rotundiore spontaneum, flore spicato, odore gravi. Raii *Syn.* 234.

WITH cautious steps we enter upon the English mints; which have hitherto been very imperfectly understood, and we shall therefore be more sparing than usual in our quotations of British authors. We have long been in expectation that the subject would have been taken up professedly by some able practical observer. The world still looks to the ingenious Mr. Sole of Bath, and it is hoped his observations on this difficult genus will not be long withheld. A complete set of specimens, named by himself, and compared by us with the Linnæan herbarium, have been of great use; as well as others collected by the pupils of Ray and Dillenius, communicated by Sir Joseph Banks. We shall therefore, by these authorities, and our own practical and repeated investigations, try to establish each species step by step, as every one that is so established lessens the difficulty with the remainder.

The *Mentha* now before us is very near, if not the same, to what Linnæus intended for *crispa* in the first edition of *Species Plantarum*, but is not that of the second edition and all other authors, which has never yet been found in Britain. Ours is also *M. Spicata* γ of that first edition.

With us it is rather rare; growing in waste ground, generally where there is moisture; and flowering in August and September. This specimen was gathered by the Rev. Mr. Forby, on the edge of an old moat at Shingham, Norfolk. We have the same collected in Essex, by J. Walford, Esq. In gardens it is often found variegated.

The root is perennial and creeping, as usual in this genus. Stems 2 or 3 feet high, erect, square, hairy or shaggy, the hairs pointing more or less downwards. Leaves roundish, somewhat heart-shaped, rugged, strongly and sharply crenate, or rather serrated, the teeth and points of the small upper ones being often very taper. The under side is shaggy, not hoary, and all the veins are fringed as it were with close hairs. Spikes several, terminal, erect, sharpish, not very densely whorled; the bractæ lanceolate, hairy, sharp, and projecting. Flowers reddish. Calyx-teeth broad at the base. *Stamina* always much longer than the corolla; which circumstance, though occasionally variable, as the Rev. Mr. Bryant and Mr. Pitchford long ago observed, is not totally to be overlooked in mints. In general, indeed, when the plant increases much by root, the *stamina* are short and abortive, as in the orange lily.







MENTHA viridis.

*Spear Mint.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft, its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes interrupted. Leaves sessile, lanceolate, acute, naked. Bracteas bristle-shaped, somewhat hairy as well as the calyx-teeth. Flowerstalks very smooth.

SYN. *Mentha viridis.* *Linn. Sp. Pl.* 804. *Sm. Fl. Brit.* 612. *Tr. of Linn. Soc.* v. 5. 185. *Huds.* 250. *With.* 521. *Hull. ed.* 2. 171. *Woodw.* t. 170. *Sole Menth.* 11. t. 5.

M. angustifolia spicata glabra, folio rugosiore, odore graviore. *Rail Syn.* 233.

SPEAR-MINT of the gardens was observed to be truly wild in various parts of England by Mr. Hudson and Mr. Sole. Our specimen was the produce of a root sent by the latter. The separate leaf and flower came from a more common broader-leaved variety, which is intended in Ray's Synopsis above quoted, where other varieties, with broader and more rugged leaves, a somewhat stronger, less aromatic scent, and hairy calyx-teeth, (the γ and δ of *Fl. Brit.*) are mentioned. This spiked species is always known, under all its variations in other respects, by the perfect nakedness, roundness and polish of its flowerstalks. The base of the calyx, too, though glandular, is not hairy. Even its teeth are naked in what makes our principal figure, which is the real *viridis* of the above authors. The whole plant is usually almost smooth. Leaves sessile, acute, sharply serrated. Flowers in long, taper, interrupted or whorled spikes, with taper-pointed bracteas, which, like the calyx and stem, often assume a dark-purple hue. Corolla light purple, smooth. The flavour of the whole is warm and aromatic, less grateful perhaps than peppermint, but more approved for salads and sauces.—The herb is perennial, flowering in August and September.





M E N T H A piperita.

*Pepper Mint.*DIDYNAMIA *Gymnospermia.*

GEN. CHAR. *Cal.* five-cleft. *Cor.* nearly regular, four-cleft ; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes blunt, interrupted below. Leaves on foot-stalks, somewhat ovate, smoothish. *Calyx* very smooth at the base.

SYN. *Mentha piperita.* *Sm. Fl. Brit.* 613. *Tr. of Linn. Soc.* v. 5. 189. *Huds.* 251. *With.* 523, var. 2. *Woodv. Med. Bot.* t. 169.

M. piperita officinalis. *Sole Mentb.* 15. t. 7.

β. *M. spicis brevioribus et habitioribus, foliis Menthæ fuscæ, sapore fervido Piperis.* *Raii Syn.* 234. t. 10. f. 2.

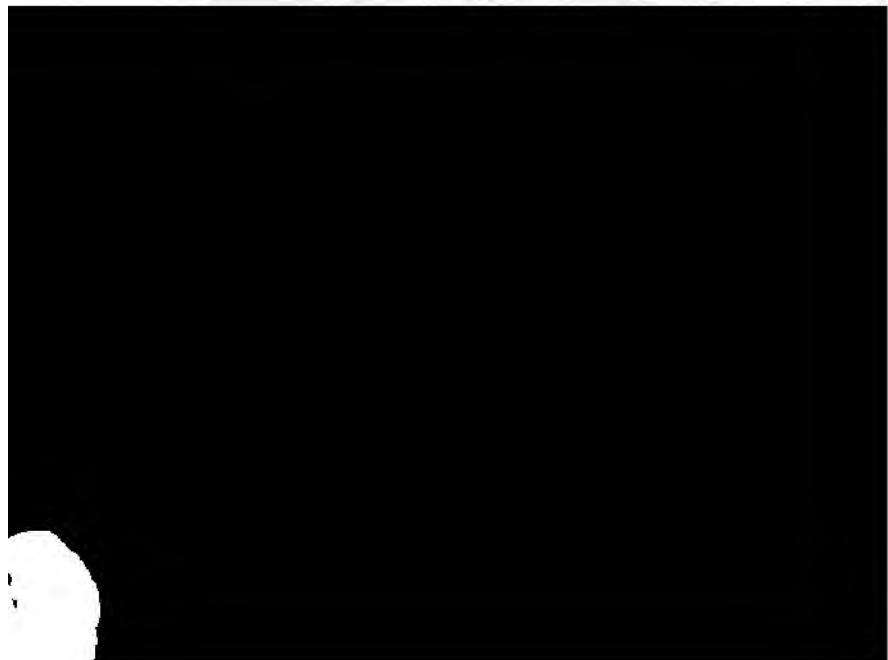
M. piperita vulgaris. *Sole Mentb.* 19. t. 8.

γ. *M. piperita sylvestris.* *Sole Mentb.* 53. t. 24.

THIS, the true garden Pepper Mint, is now and then met with on the shores of brooks indubitably wild, as at Bonfall dale near Matlock, though more frequently the outcast of gardens. Dr. Eales, its original discoverer, found it in Hertfordshire in Ray's time, and on his recommendation it appears to have come into general use as a cordial and stomachick. Mr.



Salvia rosmarinifolia L. f. *Salvia rosmarinifolia* L. f.



MENTHA odorata.

Bergamot Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes capitate, very blunt. Leaves on foot-stalks, heartshaped, naked on both sides. Calyx and flower-stalks perfectly smooth.

SYN. *Mentha odorata.* *Sole Mentb.* 21. t. 9. *Sm. Fl. Brit.* 615. *Tr. of L. Soc.* v. 5. 192. *Hull.* 127.

WITH no small pleasure we received from the Rev. Mr. Abbot, in September last, specimens of this Mint, which he considers as undoubtedly wild in a ditch near Bedford. We know of no other situation, except (according to Mr. Sole) in Cheshire and North Wales, where it is known to grow.

In general form this species resembles *M. hirsuta* in its leafy state, but it differs from that plant in having rather more heart-shaped leaves, a strong and fragrant smell like that of Bergamot, or *Monarda didyma*, and above all in being in every part perfectly destitute of hairiness. The smoothness of its flower-stalks and calyx, so constant in every soil and situa-







M E N T H A hirsuta.

*Hairy Water-Mint.*D I D Y N A M I A *Gymnospermia.*

GEN. CHAR. *Cor.* nearly regular, four-cleft ; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers in dense compound terminal heads. Leaves on short foot-stalks, ovate, serrated, hairy. *Stamina* longer than the corolla.

SYN. *Mentha hirsuta.* *Linn. Mant.* 81. *Witb.* 522. *Huds. ed.* 1. 223.

M. aquatica β et γ *Huds.* 252.

Sisymbrium hirsutum. *Ray Syn.* 233.

VERY common in clear ditches, rivulets, and other watery places, growing sometimes among large grasses and reeds, sometimes by itself, flowering in August.

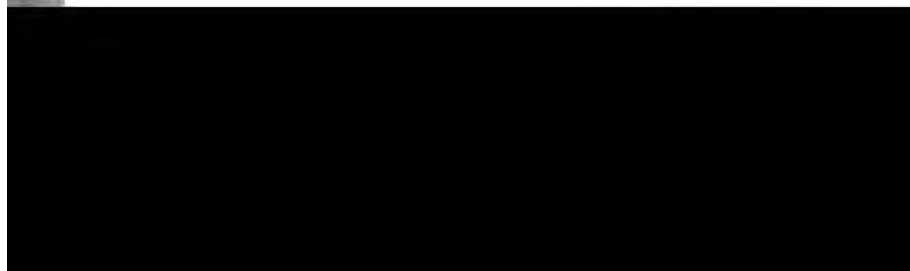
Roots long, branched, creeping under water, perennial. Stem square, branched, very generally purplish, rough with deflexed hairs, which are scattered all over it, not ranged along the edges ; there is however a dense tuft of similar hairs, between the insertions of the foot-stalks, which are erect, and the hairs on the foot-stalks and leaves also point upwards or forwards. The degree of hairiness throughout the whole plant varies extremely. Branches opposite. Leaves on shortish foot-stalks, sometimes almost sessile, spreading, ovate, frequently approaching to elliptical, pointed, serrated from a little above the base to near the tip, paler and most hairy beneath, especially about the nerves. Flowers lilac-coloured, numerous, in a large round terminal head, which, when accurately observed, is found to be divided into three parts, and is accompanied (at a greater or less distance below it) by a pair, rarely more, of smaller axillary heads. Flower-stalks and calyx very hairy. *Stamina* generally longer than the corolla.

When out of the water it grows much smaller, more purple, with a simple head of flowers, which seems to be Hudson's variety γ , though not very well drawn by Dillenius in Ray's *Synopsis*, *tab.* 10. *f.* 1.

Hudson has considered this as the same species (possibly justly) with the *Mentha aquatica* seu *Sisymbrium* of John Bauhin, and Ray's *Synopsis* p. 233, which we believe to be the *M. piperita* of Linnæus, and which is described in Sir Jos. Banks's manuscripts by the name of *M. Sisymbrium*. The *M. aquatica* of Linnæus seems different from both the above, but we have not yet sufficiently investigated that point.



Plant's origin: Published by J. L. Smith, London.



M E N T H A *fativa*.*Marsh Whorled Mint.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Stem erect. Leaves on winged foot-stalks, ovate, serrated, pubescent. Flower-stalks and calyx hairy.

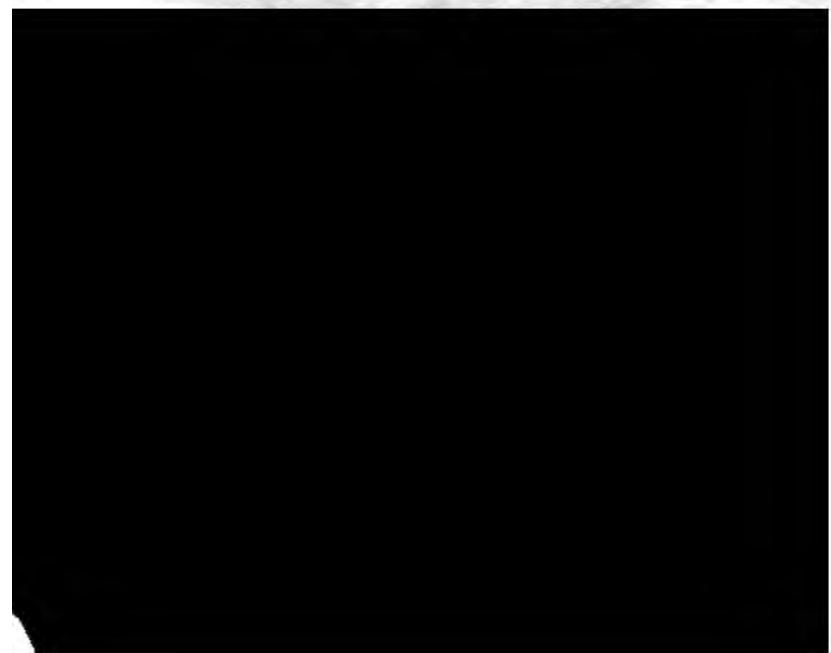
SYN. *Mentha fativa*. *Linn. Sp. Pl.* 805. *Hudf.* 253.

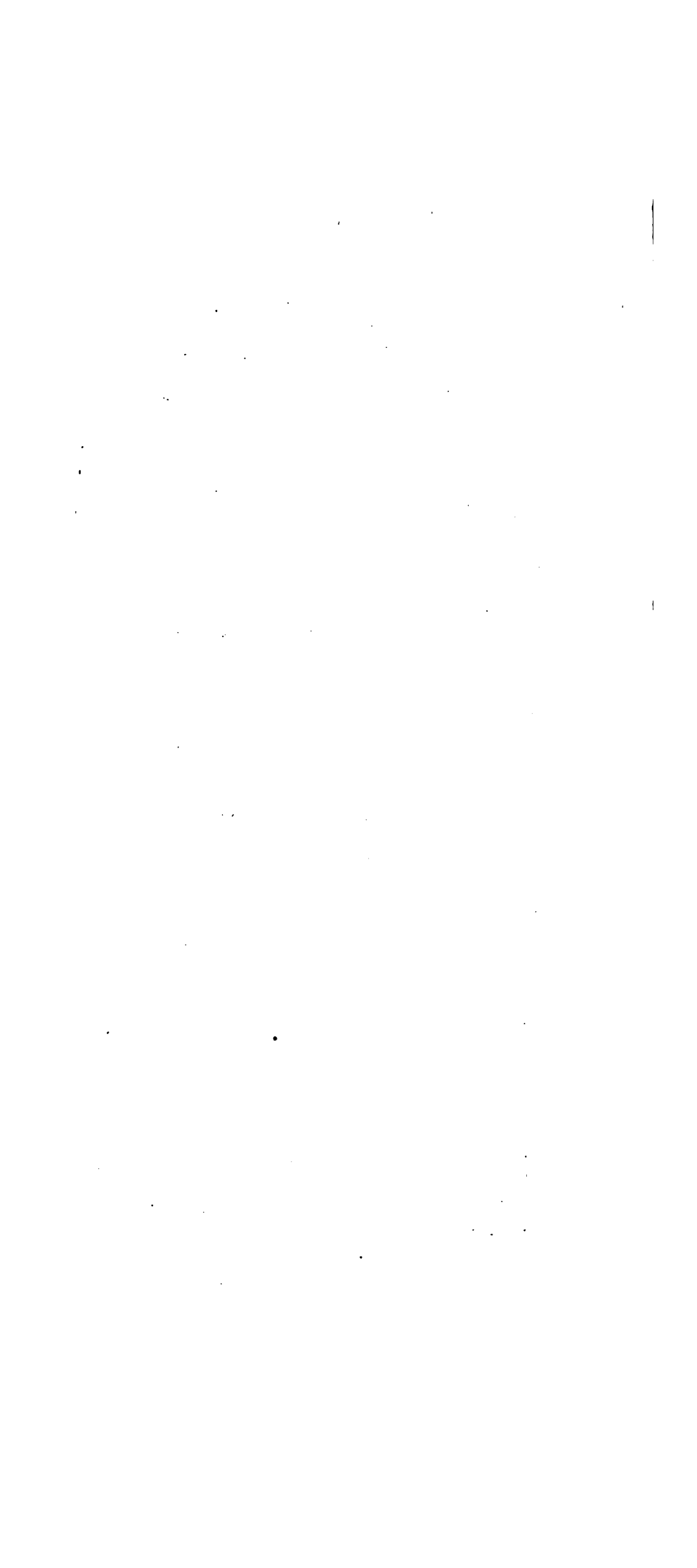
M. verticillata. *Raii Syn.* 232. *Linn. Syst. Nat.* ed. 10. 1099. *Hudf. ed.* 1. 222.

GATHERED by Mr. Edward Forster jun. on the banks of the river Lea in Low Leyton marsh, not far from Lea bridge, the very spot evidently intended by Dillenius in Ray's Synopsis as "Hackney river near the Ferry-house," which house still exists, though there has been no ferry since Lea bridge was built. Mr. Forster therefore presumes it to be the *M. verticillata* of the Synopsis. We have certainly determined it by the herbarium of Linnæus to be his *fativa*, though the synonyms in *Sp. Pl.* may possibly both be wrong. It is found flowering in August and September.

Root creeping, and throwing out long creeping horizontal shoots, as well as one erect square hairy stem, furnished all the way up to the flowering part with opposite shortish axillary leafy branches. Leaves on winged foot-stalks (the base of the leaf running down them) ovate, rather pointed, sharply serrated from near the base, veiny, clothed on both sides with short scattered hairs, and paler beneath. Flowers in axillary clusters from many of the uppermost leaves, forming whorls, and each cluster is more or less pedunculated. General and partial flower-stalks thickly covered (especially the summit of the latter just under the calyx) with white hairs pointing downwards like those on the stem, but the calyx itself is clothed all over with hairs which point upwards, just as in *M. hirsuta*; by which it may be easily known from every variety of *M. gentilis*, whose flower-stalks are always smooth, and the calyx hairy about the top only. The stamina in our specimens are shorter than the corolla; in those of Linnæus, longer.

However strange it may seem, we have of late had reason to suspect that this plant is a mere verticillate variety of *M. hirsuta*.





MENTHA acutifolia.

Fragrant Sharp-leaved Mint.

DIDYNAMIA Gymnosperma.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovato-lanceolate, tapering at each end. Calyx hairy all over. Hairs of the flowerstalks spreading.

SYN. *Mentha acutifolia.* *Sm. Tr. of Linn. Soc.* v. 5. 203. *Fl. Brit.* 619. *Hull. ed.* 2. 173.

M. verticillata. *Mill. Dict. ed.* 8. n. 17.

HAVING in vain explored the banks of the Medway for recent specimens of this Mint, we are obliged to make the best representation we can of it from one of Rand's original ones, preserved, with his hand-writing annexed, in Miller's herbarium, and given us by Sir J. Banks. This is the very identical specimen, described in all the places indicated above. It may very possibly be a variety of *M. hirsuta*, t. 447 and 448, but several circumstances seem to make it distinct. The leaves are narrower, more pointed or tapering at each end, and more unequally serrated. On this last mark indeed experience teaches us to lay little stress, any more than on the sweet smell, like frankincense thyme, which the specimen still retains. The hairs clothing the flowerstalks are horizontal or slightly recurved, not deflexed close to the stalk; what inclination they have is, however, that way, so this may be merely a difference in degree of depression. The whorls are all quite sessile. Corolla hairy in the throat, in which the stamens are included. The body of the calyx is clothed entirely with ascending hairs, especially at the base, which essentially distinguishes this plant from *rubra*, t. 1413.







[1413]

MENTHA rubra.
Tall Red Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovate. Stem upright, zigzag. Flower-stalks and lower part of the calyx very smooth; teeth hairy.

SYN. *Mentha rubra.* *Sm. Tr. of L. Soc. v. 5.* 205. *Fl. Brit.* 620.

M. sativa. *Sole Menth.* 47. *t.* 24.

M. verticillata. *Raii Syn.* 232.

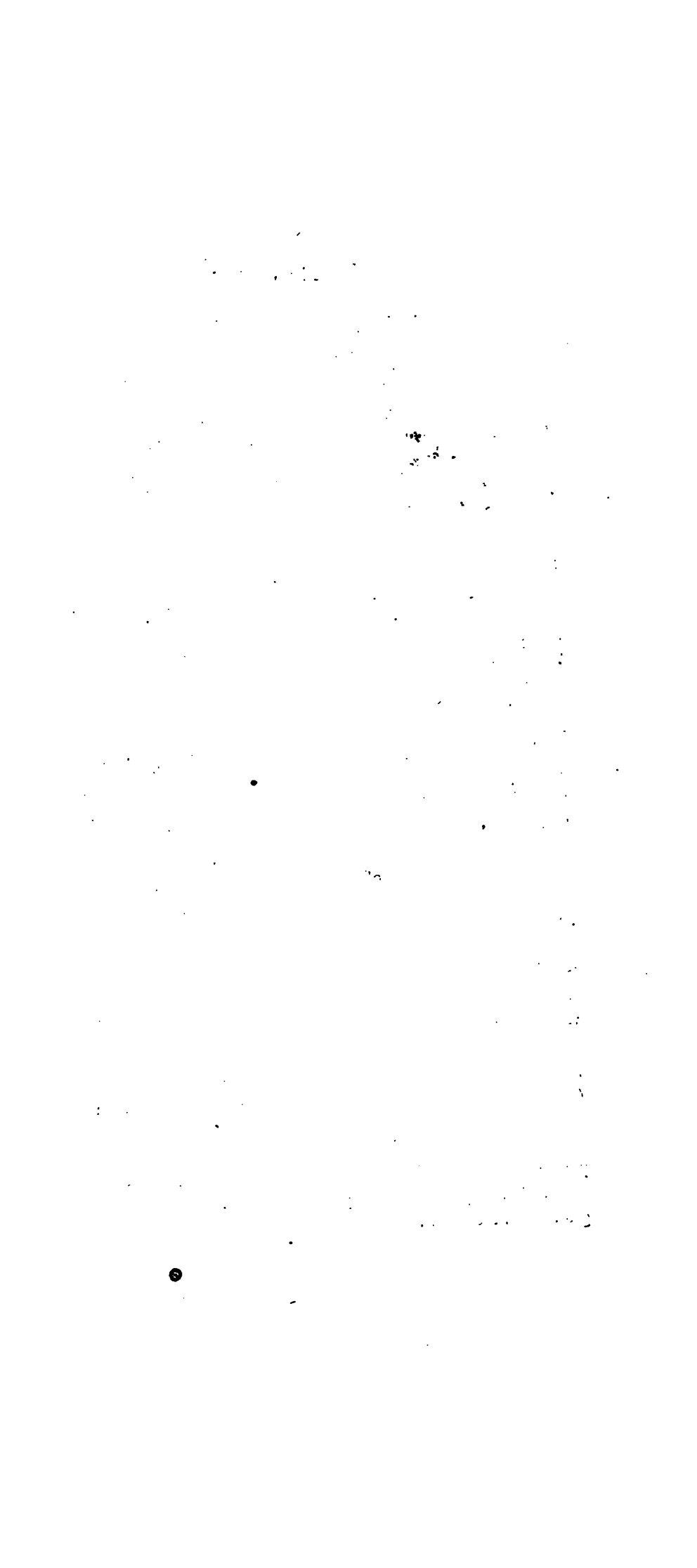
M. sativa rubra. *Ger. em.* 680.

GATHERED in September 1804 under a hedge in the road from Watton to Saham church, Norfolk, where I have observed it for several years (see *Tr. of Linn. Soc.* and *Fl. Brit.*). The season being remarkably dry, the ditch was quite dried up,









MENTHA gentilis.

Bushy Red Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovate. Stem much branched, spreading. Flower-stalks and base of the calyx smooth.

SYN. *Mentha gentilis*. *Linn. Sp. Pl.* 805. *Sm. Tr. of L. Soc. v. 5.* 208. *Fl. Brit.* 621. *Hull. ed.* 2. 173.

M. rubra. *Sole Menth.* 41. *t.* 18.

β . *M. rivalis* α . *ib.* 45. *t.* 20.

γ . *M. variegata.* *ib.* 48. *t.* 19.

M. arvensis verticillata versicolor. *Moris. sect.* 11. *t.* 7. *f.* 5.

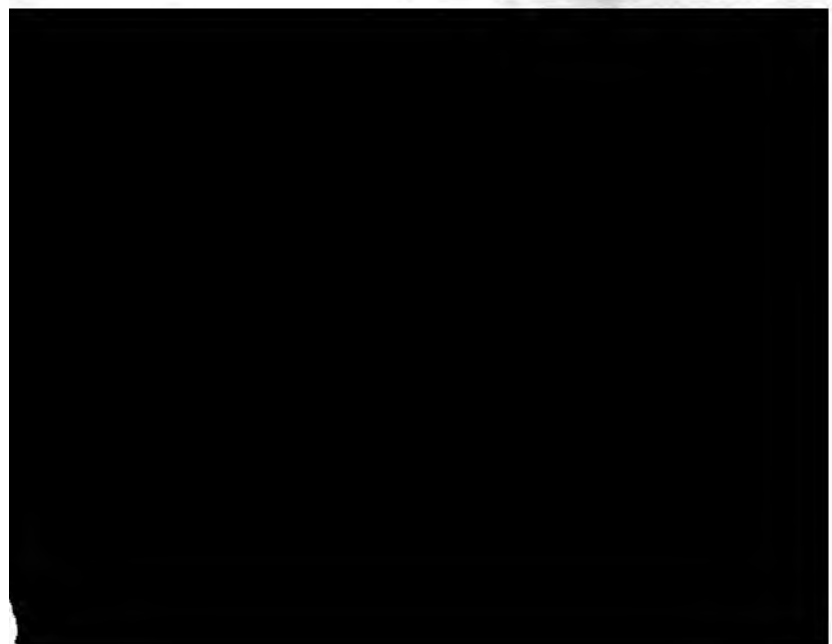
NATIVE of watery places, but rare, flowering in August and September. Our specimen was gathered at Edgefield near Holt, by Mr. Borrer and Mr. Hooker. The Rev. Mr. Williams has sent the same from Shropshire.

The stem is usually 12 or 18 inches high, erect, very bushy in consequence of the numerous opposite spreading branches, and quite different from the very tall, slender, zig-zag habit of *M. rubra*, *t.* 1413, to which its specific character approaches in other points. The whole plant however is paler than in that, and rougher; leaves more uniform, and less rounded; whorls nearly sessile, except occasionally in the varieties; calyx rough with upright hairs on the upper half; sometimes the bottom and stalk, though usually smooth and polished, bear each a few scattered hairs, those on the latter being, in such case, deflexed. Stamens hardly longer than the corolla.

The variety γ , striped with yellow, is often cultivated by poor people in windows or cottage gardens for its beauty and scent. This species especially is improved in fragrance by growing in a dry soil.



Botany published by J. Smith, London.



M E N T H A *gentilis*.*Red Mint. gracilis**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovato-lanceolate, acute, nearly sessile, scarcely hairy. Flower-stalks perfectly smooth. Teeth of the calyx hairy.

SYN. *Mentha gentilis*. *Linn. Sp. Pl.* 805. *With.* 524.

M. rubra. *Huds.* 252.

M. fusca five vulgaris. *Raii Syn.* 232.

FOUND by Mr. B. M. Forster near Walthamstow, and by Mr. Crowe and Dr. Smith in September 1797, on a small common at Saham, Norfolk.

Root creeping. Stems several, erect, growing in tufts, about 18 inches high, with harsh somewhat hairy angles, more or less reddish in the upper part, branched, leafy. Leaves most crowded towards the upper part, nearly sessile, lanceolate inclining to ovate, acute, sharply serrated, veiny, punctured with shining dots, and sprinkled (especially about the margin, and the nerves on the back) with a few short hairs. Their usual scent is much like that of the *M. viridis*, or garden mackerel mint; but nothing is more variable than the smell of mints. We have from Mr. Sole what seems a variety of this, with the delightful scent of basil, to which probably *C. Bauhin's* synonym belongs. Bractæ lanceolate, ciliated. Flower-stalks round, red, and always perfectly smooth, as is the lower part of the calyx, the upper part only, on or about the teeth, being fringed or clothed with hairs which point upwards. The pellucid globules on the calyx are very conspicuous. *Stamina* shorter than the corolla; Style much longer; Germen, as Dr. Withering has well remarked, standing on a fleshy receptacle.

We believe the synonyms above quoted are unquestionable. There is a mint which agrees with this in the calyx and flower-stalk, but grows much taller, with large ovate leaves. This many have taken for the true *M. gentilis*, but Dillenius seems to have confounded it with the *fativa*, by his description of the latter in Ray's Synopsis. We know the plant, and shall carefully investigate it; but in the mean time we venture to establish this now before us as the *gentilis*.







MENTHA arvensis.

Corn Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovate. Stem much branched. Calyx bell-shaped, clothed all over with horizontal hairs.

SYN. *Mentha arvensis*. *Linn. Sp. Pl.* 806. *Sm. Tr. of L. Soc. v. 5.* 213. *Fl. Brit.* 623. *Huds.* 253. *With.* 524. *Hull. ed. 2.* 173. *Relh.* 228. *Sibth.* 182. *Abbot.* 127. *Sole Menth.* 29. *t.* 12.

M. seu calamintha aquatica. *Raii Syn.* 232.

FREQUENT in corn-fields where water stagnates in winter, especially on a sandy or gravelly soil, flowering from July to September.

Root perennial, creeping by means of turgid fleshy shoots, very difficult to eradicate. Stem mostly diffuse. Leaves ovate inclining to elliptical, obtuse, clothed with rather rigid pro-







MENTHA agrestis.

Rugged Field Mint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves somewhat heart-shaped, strongly serrated, rugose. Stem erect. Calyx bell-shaped, clothed all over with horizontal hairs.

SYN. *Mentha agrestis.* *Sole Menth.* 33. t. 14.

M. arvensis ϵ . *Sm. Fl. Brit.* 624. *Tr. of L. Soc.* v. 5. 213, 216.

OBSERVED by the late Mr. Sole in corn-fields and neglected gardens in Somersetshire. Some plants for which I am indebted to his kindness having now for eleven years entirely preserved their original appearance and characters, I think it right to make this Mint known, which Mr. Borrer says is very common in Sussex. How far the erect stem, and roundish-heartshaped, rugged, strongly serrated leaves, may be thought a sufficient specific distinction from *arvensis*, with which it agrees in more essential points, I greatly doubt, but I leave to the judgment of others. Their permanency in a dry garden, under various treatment, is in their favour; for the varieties of *M. hirsuta*, and of the spiked mints, have, under my observation, frequently changed according to seasons and situations. The characters deduced from the calyx and its hairs, however, prove certain; but it does not always follow that two *Menthæ* agreeing in those, *must* otherwise be one species, though I have scarcely found an exception, if the present be not one. If this clue to a true knowledge of these difficult plants obliged me to dissent from my intelligent and experienced correspondent, as well as from many of the first botanists, it was not without due respect to their merits. Mr. Sole and Mr. Pitchford were preeminent in the knowledge of the various mints; we merely differed as to some of them being species or varieties, and my peculiar advantages only enabled me to correct their nomenclature.



Folia, etc. illustrata by J. Smith, London



MENTHA Pulegium.

Penny-royal.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* nearly regular, 4-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Flowers whorled. Leaves ovate. Stem prostrate. Flower-stalks and calyx downy all over; the teeth fringed.

SYN. *Mentha Pulegium.* *Linn. Sp. Pl.* 807. *Sm. Fl. Brit.* 625. *Tr. of L. Soc.* v. 5. 216. *Huds.* 254. *Witb.* 525. *Hull.* 130. *Relb.* 224. *Sibth.* 182. *Woodv. Med. Bot.* t. 171. *Sole Mentb.* 51. t. 23.

Pulegium. *Raii Syn.* 235.

PENNY-ROYAL, long celebrated among medical practitioners for removing obstructions of various kinds, strengthening the viscera, and other stimulant or tonic powers, is consequently frequent in gardens. In a wild state it less generally occurs; but may now and then be found on wet commons, especially on a strong soil, flowering in September, the usual



May 1, 1862 Published by J. L. Smith, London.





GLECHOMA hederacea.

Ground-Ivy.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, nearly regular. *Antheræ* approaching each other in pairs forming a cross.

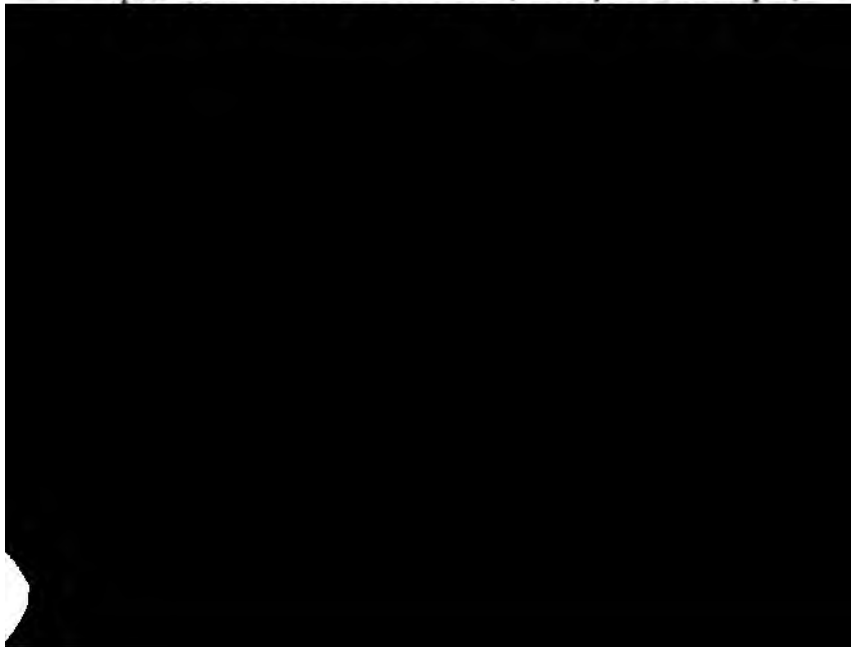
SPEC. CHAR. Leaves kidney-shaped, crenate.

SYN. *Glechoma hederacea.* *Linn. Sp. Pl.* 807. *Sm. Fl. Brit.* 625. *Huds.* 254. *Witb.* 526. *Hull.* 125. *Relb.* 225. *Sibth.* 183. *Abbot.* 128. *Curt. Lond. fasc.* 2. t. 44. *Mart. Fl. Rust.* t. 61. *Woodv. Med. Bot.* t. 28.

Calamintha humilior, folio rotundiore. Raii Syn. 243.

GROUND-IVY, Gill, or Alehoof, for it is vulgarly known by all those names, is a very common plant in dry groves, about hedge-banks, under park walls or pales, and similar situations, where it puts forth its fragrant foliage on the first approach of spring, and flowers in April and May.

The roots are perennial and creeping, throwing out running scions, which also take root to a great extent, and several weak square stems. Leaves on foot-stalks, kidney or heart-shaped,





Geranium macranthum L. f. *Geranium* L.





L A M I U M album.

White Dead-nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heart-shaped, pointed, stalked. Flowers about twenty in a whorl.

SYN. *Lamium album.* *Linn. Sp. Pl.* 809. *Sm. Fl. Brit.* 626. *Huds.* 255. *Witb.* 526. *Hull.* 131. *Relb.* 226. *Sibth.* 183. *Abbot.* 128. *Curt. Lond. fasc.* 2. t. 45. *Mart. Fl. Russ.* t. 26. *Raii Syn.* 240.

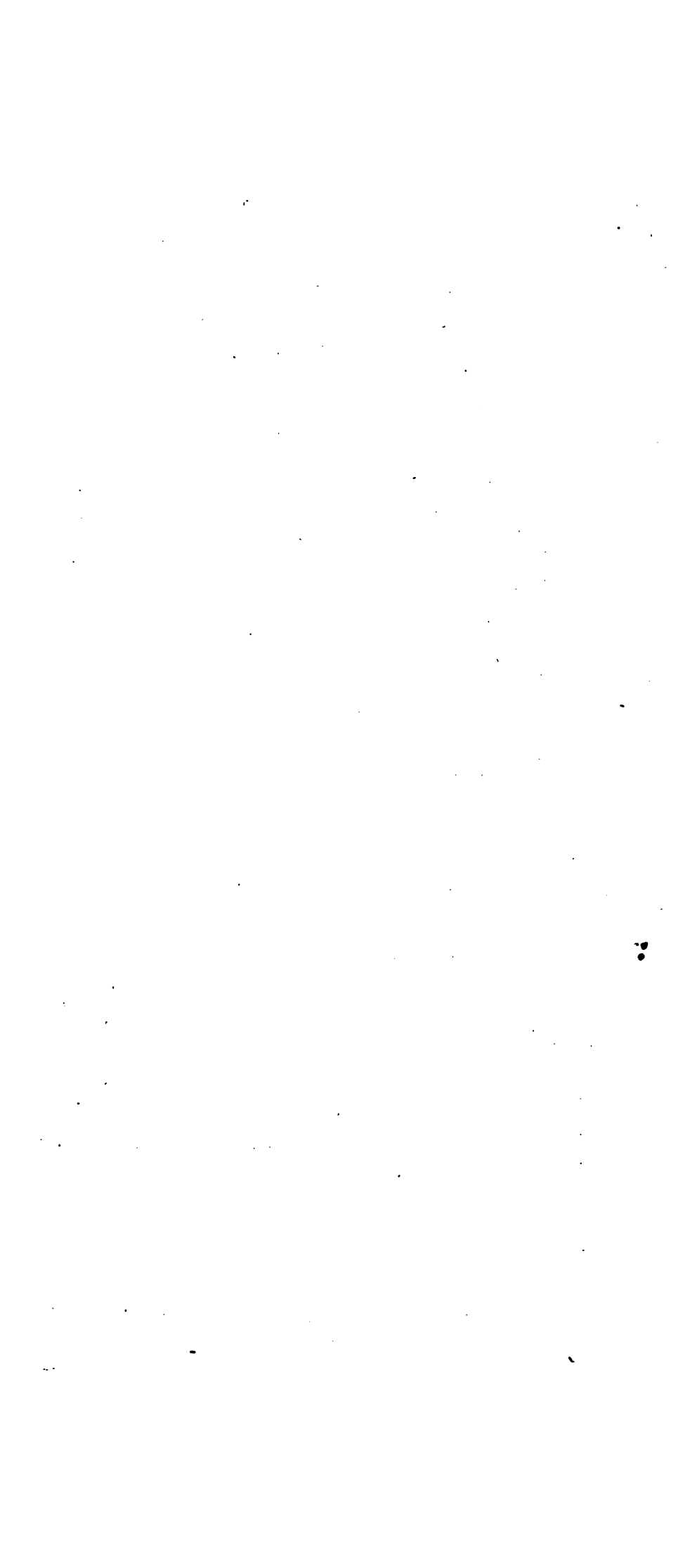
COMMON every where in waste ground, by road sides, and the borders of fields, where it flowers abundantly in May and June, and again for the most part in autumn.

The root is creeping and perennial. Stems about 12 or 18 inches high, square, leafy. Leaves in pairs, all at nearly equal









LAMIUM maculatum.

*Spotted Dead-nettle.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heartshaped, pointed, deeply serrated. Whorls ten-flowered.

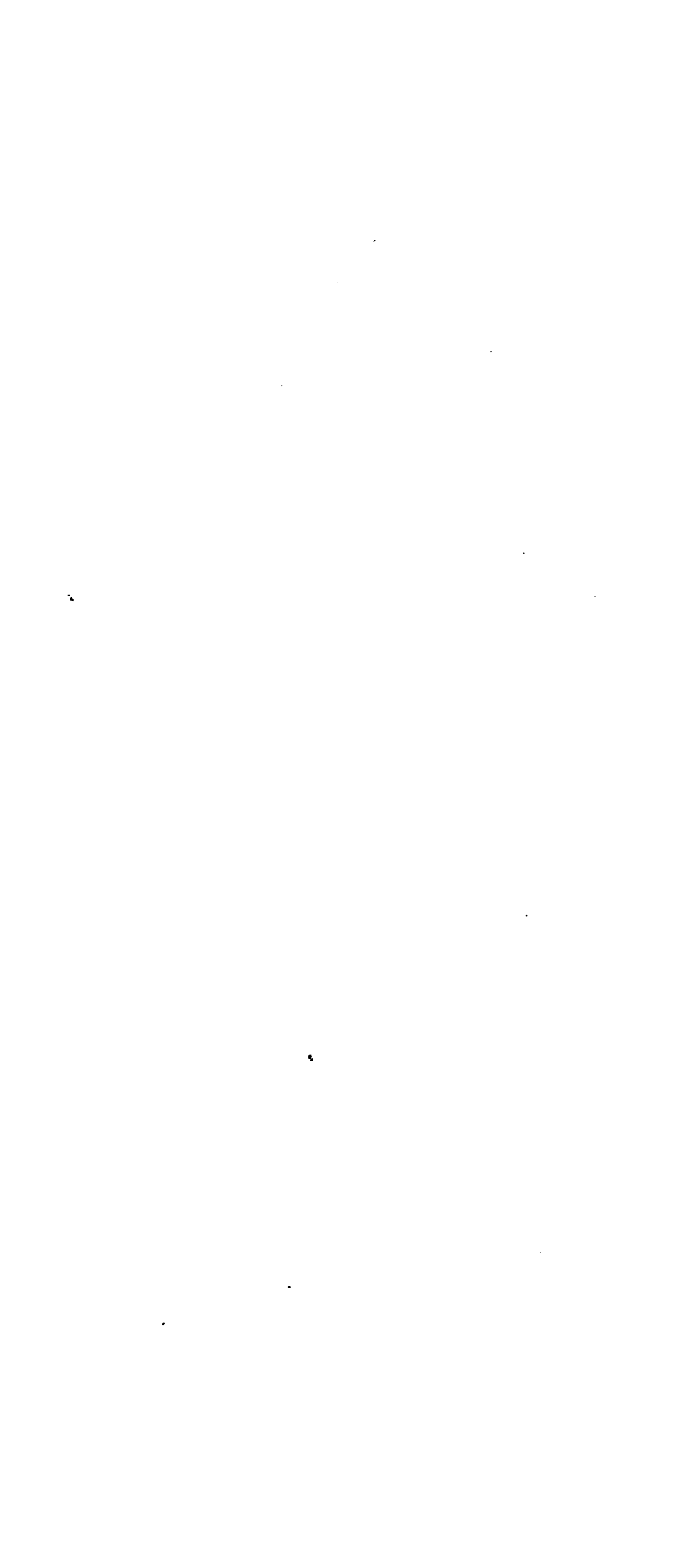
SYN. *Lamium maculatum.* *Linn. Sp. Pl.* 809. *Ait. Hort. Kew. ed. 2. v. 3.* 393.

FOUND interspersed with *L. album*, t. 768, on a bank in a lane near Redland Court not far from Bristol, by Mrs. Vaughan, to whom we are obliged for fresh wild specimens. We formerly gathered the same about Bayswater, but suspected it to be the outcast of some botanic garden. It is perennial, flowering in April, and is distinguished in the winter and early spring by the large and elegant white spots, which render the radical leaves nearly as beautiful and conspicuous as those of a *Cyclamen*. The stem-leaves have scarcely any traces of these spots, and they, as well as the whole habit of the plant, accord much with *L. album*; but the flowers are only half as many in a whorl, and of a deep crimson, beautifully speckled. There is no question of the species being perfectly distinct, and we presume it must be truly wild in the place above mentioned. Throughout the south of Europe it mostly takes place of the *album*, so common with us.



Fig. 1. published by J. B. de la Roche





LAMIUM purpureum.

*Red Dead-nettle.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heart-shaped, blunt, stalked; the uppermost clustered together.

SYN. *Lamium purpureum.* *Linn. Sp. Pl.* 809. *Sm. Fl. Brit.* 627. *Huds.* 255. *Witb.* 527. *Hull.* 131. *Relb.* 226. *Sibth.* 183. *Abbot.* 128. *Curt. Lond. fasc.* 1. t. 42. *Mart. Fl. Rust. t.* 25. *Dicks. H. Sicc. fasc.* 16. 20.

L. rubrum. *Raii Syn.* 240.

THIS is no less common a weed in cultivated ground than the *L. album* in untilled places, and may be found in flower

709







[1933]

LAMIUM incisum,
Cut-leaved Archangel.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Leaves heartshaped, dilated, stalked, irregularly cut; the uppermost crowded. Tube of the corolla internally naked.

SYN. *Lamium incisum.* Willd. *Sp. Pl.* v. 3. 89.

L. dissectum. With. 527. Hull. 132. Sym. 136.

L. purpureum β. Sm. *Fl. Brit.* 627. Huds. 255. Relh. 231.

L. rubrum minus, foliis profundè incisis. Raii Syn. 240. Pluk. *Phyt.* t. 41. f. 3.

FOUND by the Rev. G. R. Leathes in great plenty at Hunington, Suffolk, in the middle of May last, also in a field of tares at Pakenham. We have often met with it, and have always judged it a variety of *L. purpureum*, t. 769; but an observation of Mr. J. D. Sowerby, that the tube of the corolla in *purpureum* is furnished internally near the base with a dense row of bristly hairs, which are wanting in our present plant, determines us to separate them, as Dr. Withering, Mr. Woodward and Professor Willdenow have done. We adopt the name given by the latter as being rather the best, and, from the popularity of his work, less likely to cause confusion than one which has never been followed.

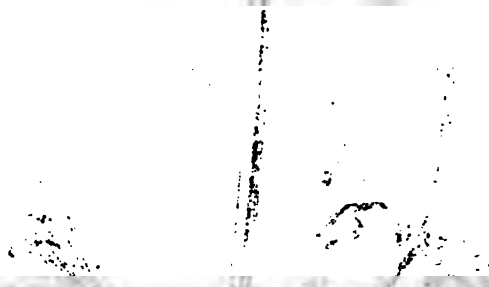
The flowers of this *Lamium* approach nearer in form and hue to *L. amplexicaule*, t. 770, than to t. 769, especially their marginal teeth, while the leaves more resemble those of the latter. The plant is usually smaller than either, and like them annual. The seeds are like those of *purpureum*, and are ripened in plenty, so that, though an intermediate species, it cannot be supposed a hybrid production.

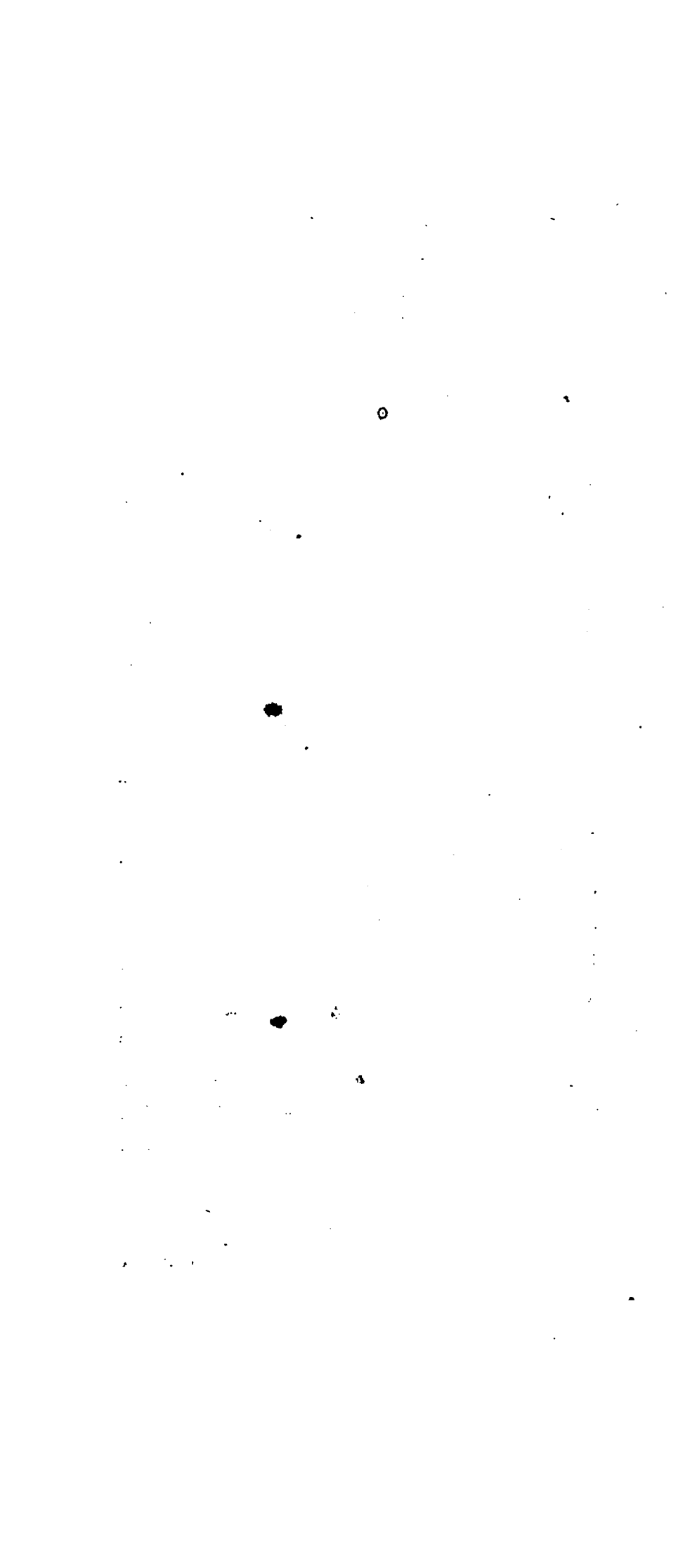
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Deposited, Published by J. & J. Smith, London.

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LAMIUM amplexicaule.

Henbit Dead-nettle.

6

DIDYNAMIA *Gymnospermia.*

GEN. CHAR. *Cal.* 5-cleft, its teeth awl-shaped, spreading. Upper lip of the *Corolla* undivided, vaulted; lower 2-lobed; orifice inflated, toothed at each side.

SPEC. CHAR. Floral leaves sessile, obtuse, embracing the stem.

SYN. *Lamium amplexicaule.* *Linn. Sp. Pl.* 809. *Sm. Fl. Brit.* 627. *Huds.* 255. *With.* 527. *Hull.* 132. *Relb.* 226. *Sibth.* 184. *Abbot.* 128. *Curt. Lond. fasc.* 2. t. 46.

L. folio caulem ambiente majus et minus. *Raii Syn.* 240.

THE least general of the three British species of *Lamium* is the *amplexicaule*. It is found only in dry sandy barren fields, or on walls, where it flowers from the middle or end of

770



Salvia officinalis



GALEOPSIS Ladanum.

*Red Hemp-Nettle.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* notched, vaulted : lower with 2 teeth on its upper side.

SPEC. CHAR. Stem not swelled below the joints. Leaves lanceolate, more or less serrated, hairy. Upper lip of the *corolla* slightly notched.

SYN. *Galeopsis Ladanum.* *Lim. Sp. Pl.* 810. *Sm. Fl. Brit.* 628. *Huds.* 256. *Witb.* 528. *Hull.* 132. *Relb.* 227. *Sibtb.* 184. *Abbot.* 129.

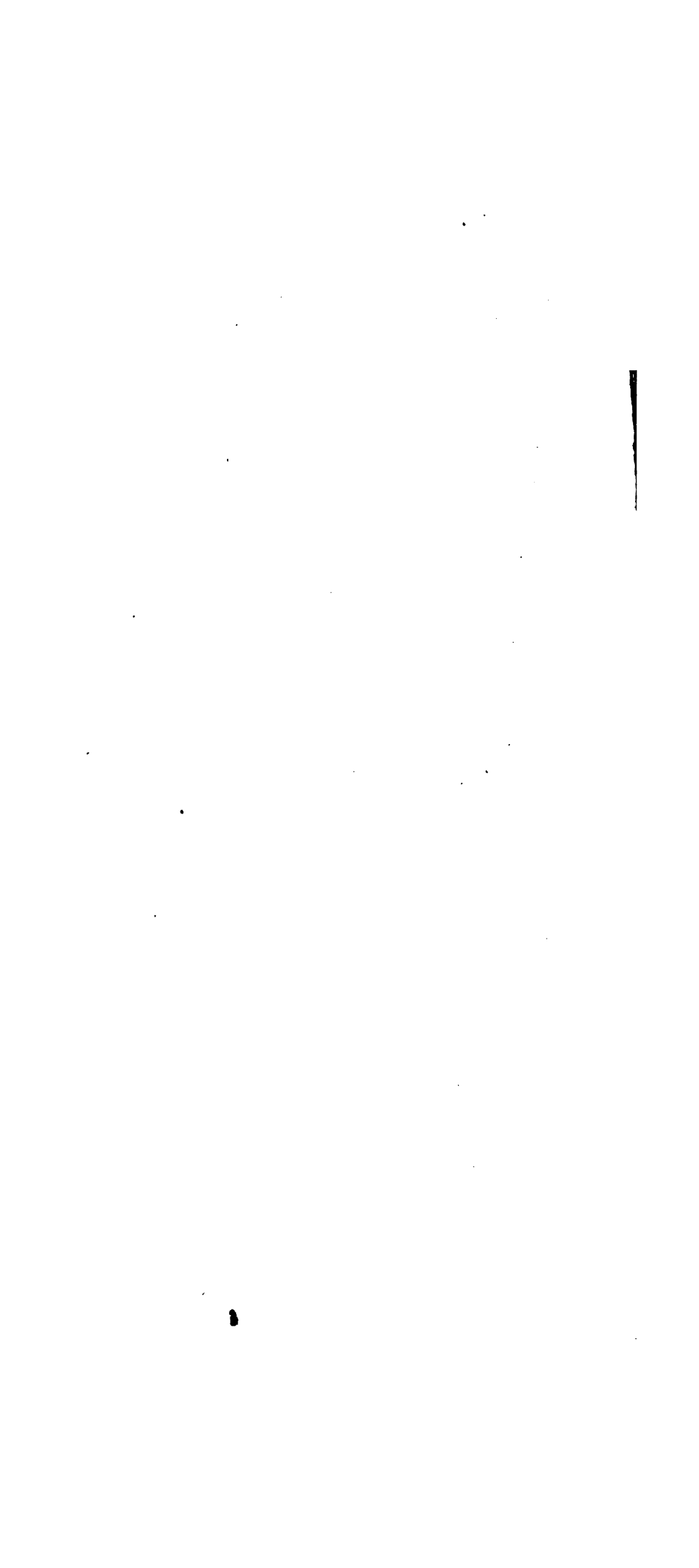
Sideritis arvensis rubra. *Raii Syn.* 242.

A NATIVE of dry gravelly, or more especially chalky, cornfields, flowering in August and September. It is not mentioned by Mr. Lightfoot as growing in Scotland, but we have received from A. Bruce, Esq. specimens gathered in that country on dry limestone rubbish.

Root annual, fibrous. Stem about a foot high, oppositely







GALEOPSIS villosa.

*Downy Hemp-Nettle.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* notched, vaulted: lower with 2 teeth on its upper side.

SPEC. CHAR. Stem not swelled below the joints. Leaves ovato-lanceolate, serrated, villous. Upper lip of the *corolla* deeply notched.

SYN. *Galeopsis villosa.* *Huds.* 256. *Sm. Fl. Brit.* 629. *Hull. ed. 2.* 175. *Galp.* 50. *Dicks. H. Sicc. fasc.* 10. 15.

G. grandiflora. *With.* 528.

G. n. 267. *Hall. Hist. v.* 1. 117.

Betonica hirta. *Huds. ed.* 1. 220, but not of *Linnaeus*.

Sideritis arvensis latifolia hirsuta lutea. *Raii Syn.* 242.

A NATIVE of sandy corn-fields, chiefly in Yorkshire and Lancashire, flowering in July and August. What Mr. Relhan mistook for it in the first edition of his *Fl. Cant.* appears by the second to be our *versicolor*, *t.* 667.

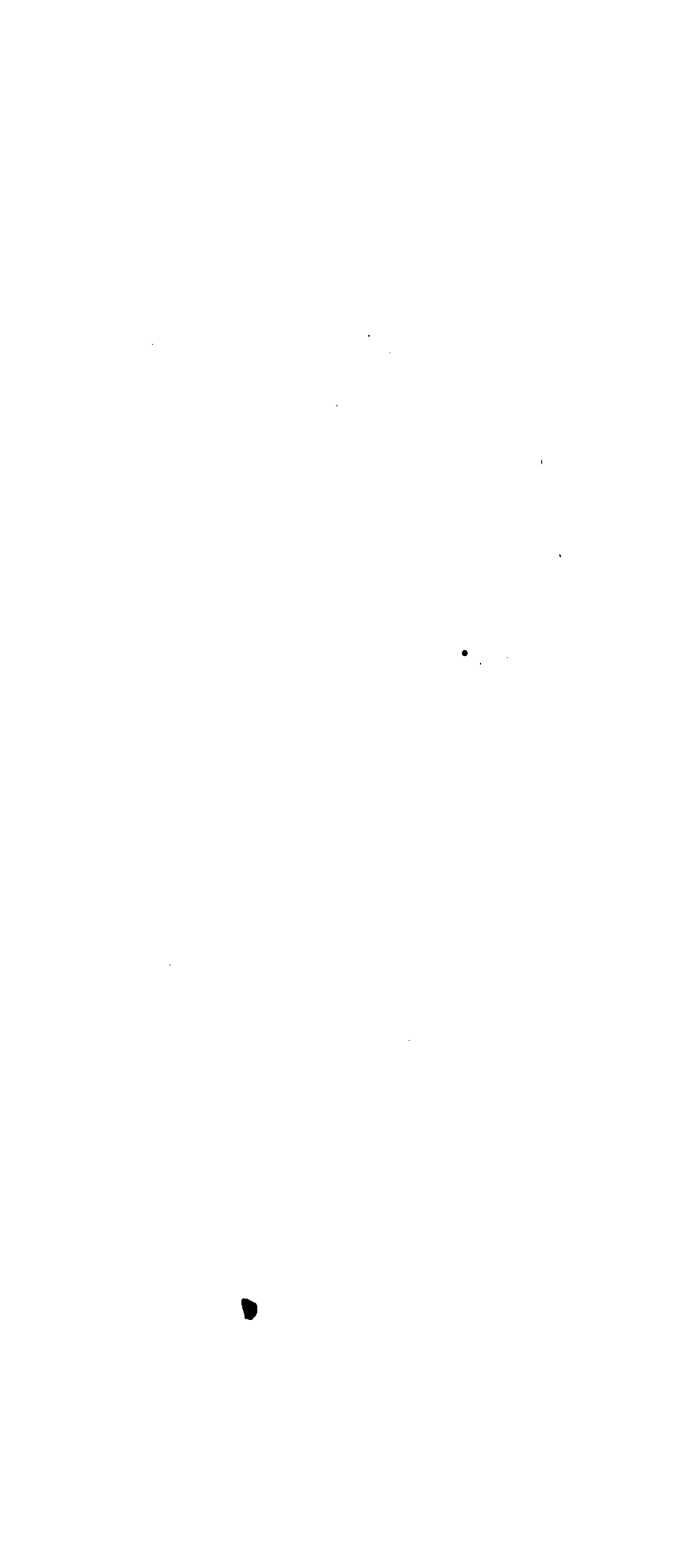
The root is annual and fibrous. Whole plant most like *G. Ladanum*, *t.* 884, but larger, rather paler, and more hoary. The leaves are more ovate than lanceolate, regularly serrated, clothed with dense soft down, especially underneath. Calyx villous, with straight pungent teeth. Corolla four times as long as the calyx, of an elegant pale sulphur colour; the palate deep yellow. The upper lip is strongly and sharply notched, and somewhat cloven.

2353.



Descriptio by J. L. L.





GALEOPSIS Tetrahit.

Red Hemp-Nettle.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *corolla* slightly notched, vaulted; lower lip with two teeth on its upper side.

SPEC. CHAR. Stem swelled below the joints. Upper whorls crowded together. Calyx pungent.

SYN. Galeopsis Tetrahit. *Lim. Sp. Pl.* 810. *Huds. Fl. An.* 257. *With. Bot. Arr.* 608. *Relb. Cant.* 228.

Lamium cannabino folio vulgare. Raii Syn. 240.

A TROUBLESOME weed in corn-fields, gardens, &c. on a gravelly soil, but being strictly annual is easily eradicated before flowering. The stem is quadrangular, but much swelled below 2 or 3 of the lowermost joints. Every part is rough with very sharp, but not venomous, prickles, and the calyx-teeth are very pungent. The herb has a strong, not aromatic, odour when bruised. The corolla varies much in size and colour,





Salvia officinalis L. 1794.





GALEOPSIS vericolor.

Large-flowered Hemp-Nettle.

DIDYNAMIA *Gymnospermia.*

GEN. CHAR. *Cal.* five-cleft, awned. Upper lip of the *corolla* notched, vaulted ; lower with 2 teeth on its upper side.

SPEC. CHAR. Stem bristly, swelled below the joints. Corolla three times as long as the calyx ; its upper lip inflated.

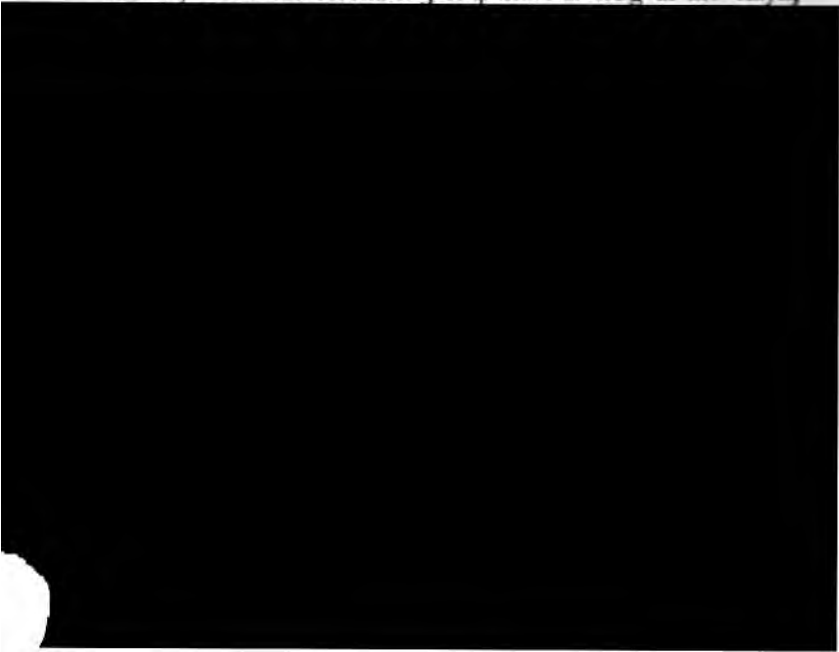
SYN. Galeopsis vericolor. *Curt. Lond. fasc. 6. t. 38.*

G. cannabina. *With. 529. Hull. 132.*

G. Tetrabit β. *Linn. Sp. Pl. 810. δ Hulf. 257.*

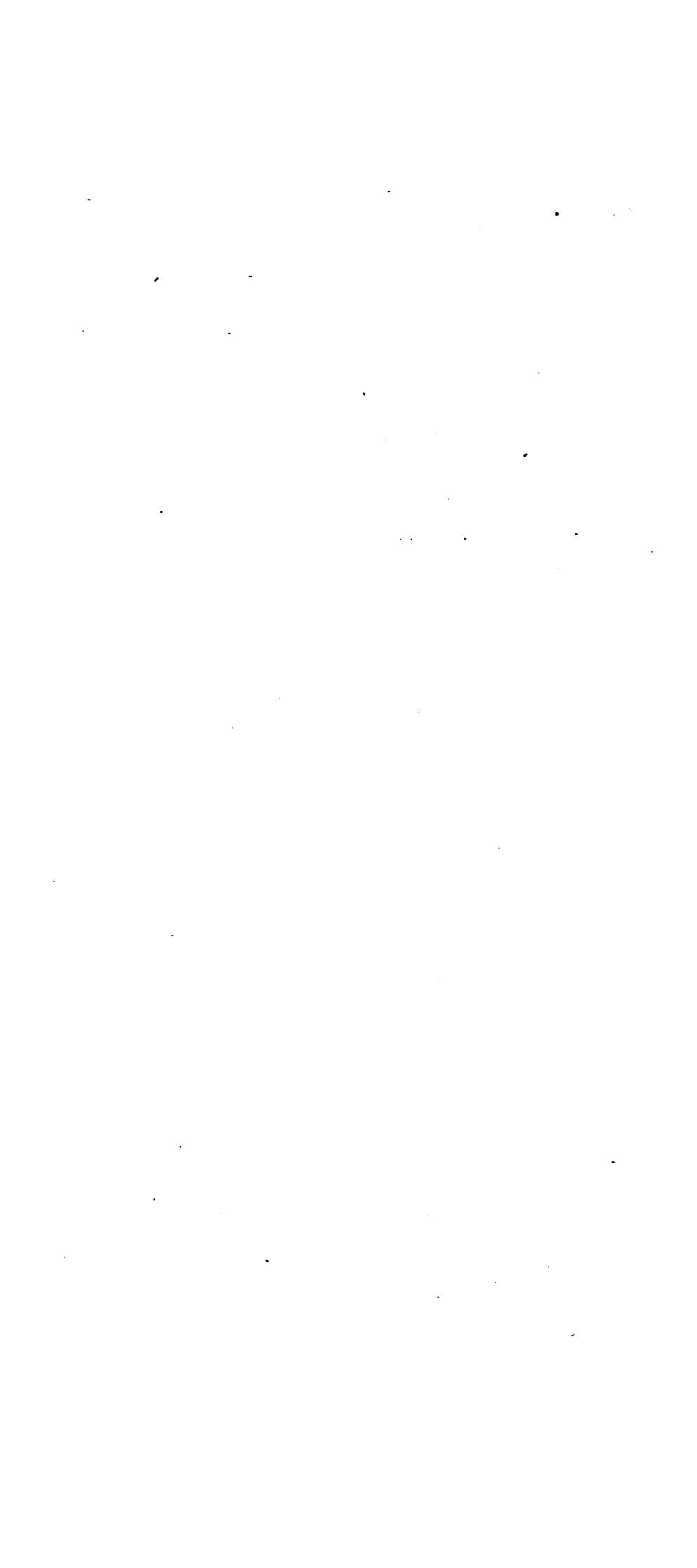
Lamium cannabino folio, flore amplo luteo, labio purpureo. Rati Syn. 241.

I N our 3d volume, *p. 207*, we have already promised a figure of this plant as a variety of *Galeopsis Tetrabit*, but we now assent to the opinion of those who judge it a distinct species. It is constant in its appearance and characters, propagating itself by seed : the corolla is 3 or 4 times as long as the calyx,









GALEOBDOLON luteum.

Yellow Archangel.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, unequal, awned. Upper lip of the *corolla* entire, vaulted ; lower in 3 acute segments.

SPEC. CHAR.

SYN. Galeobdolon luteum. *Huds.* 258. *Sm. Fl. Brit.* 631. *With.* 530. *Hull.* 131. *Abbot.* 129.

G. Galeopsis. *Curt. Lond. fasc.* 4. t. 40. *Relb.* 228. *Sibirb.* 185.

Galeopsis Galeobdolon. *Linn. Sp. Pl.* 810.

Lamium luteum. *Raii Syn.* 240.

SO obvious a resemblance to the genus *Lamium* runs through almost every part of this plant, that we cannot blame the old authors for naming it *Lamium luteum*. It is perhaps to be lamented that the strict, though sound, laws of systematic botany oblige us to make it a separate genus, for neither its natural habit nor essential characters will allow us to follow Linnæus in referring it to *Galeopsis*. The pointed, uniform, and almost equal segments of the lower lip, and the perfectly







BETONICA officinalis.*Wood Betony.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* ascending, flattish; lower 3-cleft: tube cylindrical.

SPEC. CHAR. Spike interrupted. Middle segment of the lower lip notched.

SYN. *Betonica officinalis.* *Linn. Sp. Pl.* 810. *Sm. Fl. Brit.* 632. *Huds.* 258. *With.* 530. *Hall.* 131. *Rehb.* 233. *Sibth.* 185. *Abbot.* 130. *Curt. Lond. fasc.* 3. t. 33. *Woods. Suppl.* t. 241.

Betonica. *Rau* Syn. 238.

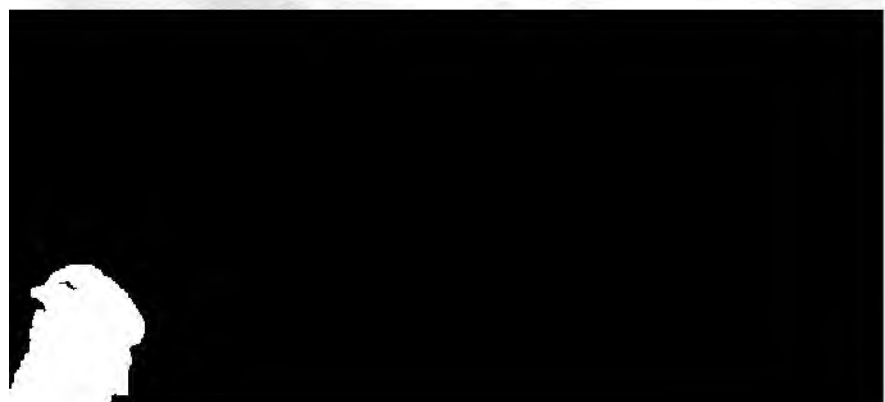
NOT rare in woods and thickets, where it flowers in July and August.

Root perennial, somewhat woody. Whole herb rough with rigid hairs, to which, as is well observed in the Dispensatory, the power of the dried plant to procure sneezing is owing, and not to any internal quality. The stem is simple, square, almost leafless. Radical leaves on long stalks, ovate





Salvia officinalis L. by J. G. Smith del. J. G. Smith sculp.





STACHYS sylvatica.

Hedge Woundwort.

DIDYNAMIA *Gymnospermia.*

GEN. CHAR. Upper-lip of the corolla vaulted; lower-lip reflexed at the sides, the large middle segment notched. *Stamina* after shedding their pollen divaricated.

SPEC. CHAR. Six flowers in a whorl. Leaves heart-shaped, on footstalks.

SYN. *Stachys sylvatica.* Linn. *Sp. Pl.* 811. Huds. *Fl. An.* 259. With. *Bot. Arr.* 612 *ed.* 3. v. 3. 531. *Relh. Cant.* 229. *Sibth. Ox.* 186. Curt. *Lond. fasc.* 3. t. 34.

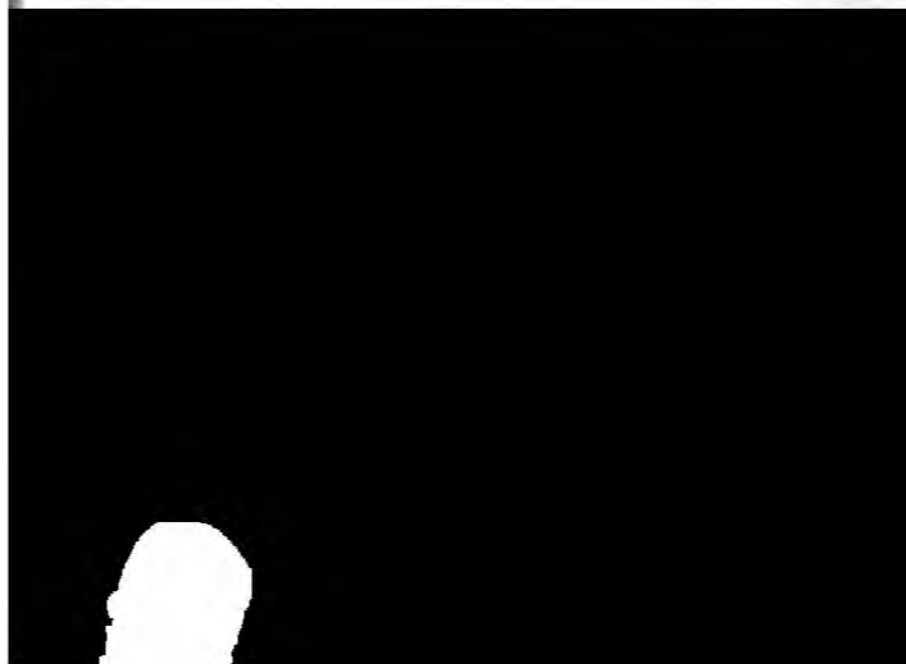
Galeopsis legitima Dioscoridis. *Rati Syn.* 237.

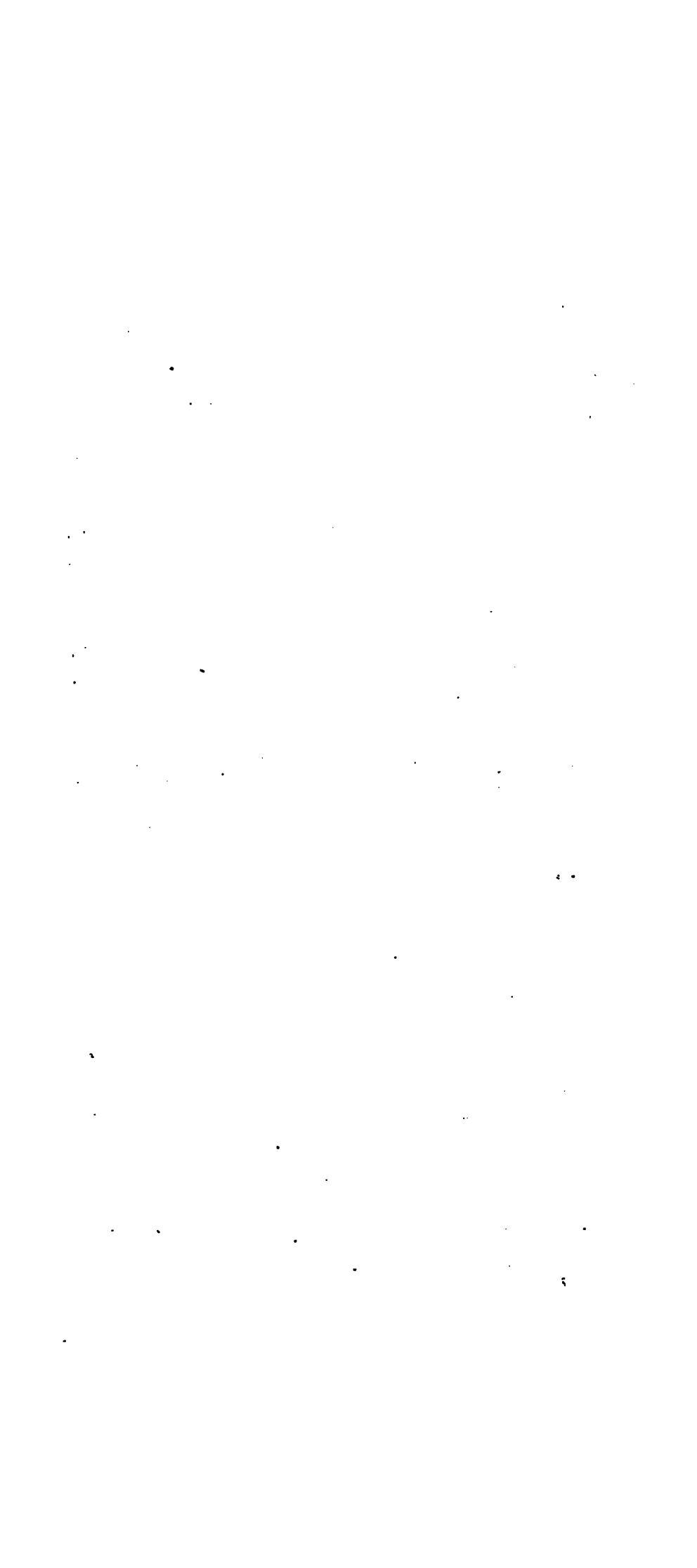
FREQUENT under hedges and in other shady places, flowering in July and August. The name of *sylvatica*, which seems to have originated with Rivinus, is not well applied to this species; *semiversa* would more accurately express its general situation.

Root perennial, creeping, but not very extensively. Stems 2 feet high, erect, but little branched, square, hairy, leafy. Leaves on footstalks, heart-shaped, acute, strongly serrated, rough, thin and pliable when handled, of a deep dull green; the upper ones on shorter footstalks, and gradually dimi-



Salvia officinalis L.





STACHYS ambigua.

Ambiguous Woundwort.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* vaulted; lower reflexed at the sides, the large middle segment notched. *Stamens* when old bent outwards.

SPEC. CHAR. Six flowers in a whorl. Leaves oblong, heart-shaped at the base, on footstalks. Stem hollow.

THE specimen in our plate was gathered in the Orkneys, where this plant is very abundant in potatoe fields and other cultivated ground, by Mr. W. Borrer and Mr. W. J. Hooker, who also found the same near Loch Carron and in Glen Ely in the north of Scotland, in September 1808. We have received in August 1809 a specimen, gathered by Mr. J. R. Weatherhead in a boggy place at the foot of one of the



2089.



Herbarium published by J. E. Sowerby, London.





STACHYS palustris.

Marsh Woundwort.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the corolla vaulted; lower reflexed at the sides, the large middle segment notched. *Stamina* when old bent outwards.

SPEC. CHAR. Six flowers in a whorl. Leaves linear-lanceolate, half embracing the stem. Root tuberous.

SYN. *Stachys palustris.* *Linn. Sp. Pl.* 811. *Sm. Fl. Brit.* 633. *Huds.* 259. *With.* 532. *Hull.* 132. *Relh.* 234. *Sibth.* 186. *Abbot.* 130. *Curt. Lond. fasc. 3. t. 35.* *Dicks. H. Sicc. fasc. 15. 8.*

Sideritis anglica strumosa radice. *Raii Syn.* 242.

Panax coloni. *Ger. em.* 1005.

IN reedy watery places about the banks of rivers, and in wet hedges, this species is common, flowering in August. Mr. Curtis mentions it as "very noxious in many cornfields," but they must be such as are low and moist.

Root perennial, creeping very much, fleshy, in the autumn throwing out many tuberous young shoots. It is best eradicated before these shoots form, which is also before the seeds are perfected. Stems 2 or 3 feet high, straight, square, rough with deflexed bristles. Leaves serrated, silky above, rather woolly beneath, lanceolate or somewhat linear, (at least the lower ones,) acute; the upper ones heartshaped at the base, and clasping the stem. Spike of many whorls, accompanied by small leaves; the upper ones crowded. Calyx hairy. Corolla purple; its lower lip prettily streaked with white.

The whole plant has a strong unpleasant scent. Gerarde gives a very amusing account of its virtues in healing most "grievous and mortal wounds," the knowledge of which he derived from a clown, who cured a wound with it in a week, that, says Gerarde, "would have required 40 daies with balsam itself." Hence he named the plant Clown's Wound-rt.



Des. tabul. Adh. 181 by J. S. Goussier, London.



STACHYS germanica.

Downy Woundwort.

DIDYNAMIA *Gymnospermia.*

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* vaulted ; lower reflexed at the sides, the large middle segment notched. *Stamina* when old bent outwards.

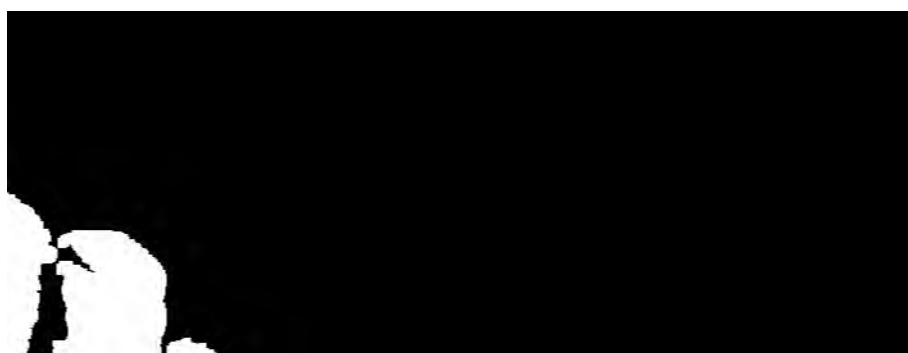
SPEC. CHAR. Many flowers in a whorl. Leaves crenate. Stem woolly, erect.

SYN. *Stachys germanica.* *Linn. Sp. Pl.* 812. *Sm. Fl. Brit.* 634. *Huds.* 259. *With.* 532. *Hull.* 132. *Sibth.* 186.

S. Fuchsii. *Ratii Syn.* 239.

IN corn-fields and by way-sides on the limestone soil of Oxfordshire the *Stachys germanica* has long been observed ; but the Rev. Mr. Hemsted discovered this plant on a hill 2 miles from Bedford in September last, a new British station for it, from whence he favoured us with the present







STACHYS arvensis.

Corn Woundwort.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* vaulted; lower reflexed at the sides, the large middle segment notched. *Stamina* when old bent outwards.

SPEC. CHAR. Six flowers in a whorl. Stem weak. Leaves heart-shaped, obtuse, crenate, slightly hairy.

SYN. *Stachys arvensis.* *Linn. Sp. Pl.* 814. *Sm. Fl. Brit.* 634. *Huds.* 260. *Willd.* 532. *Hull.* 132. *Rehb.* 234. *Sibth.* 187. *Curt. Lond. fasc.* 4. t. 41. *Dickf. H. Sicc. fasc.* 15. 7.

Sideritis humilis, lato obtuso folio. *Raii Syn.* 242.

COMMON in gravelly, chalky, or light sandy fields, flowering in July and August.

The root is small and annual. Stems spreading, often pro-





BALLOTA nigra.

Black Horeboud.

DIDYNAMIA Gynnospermia.

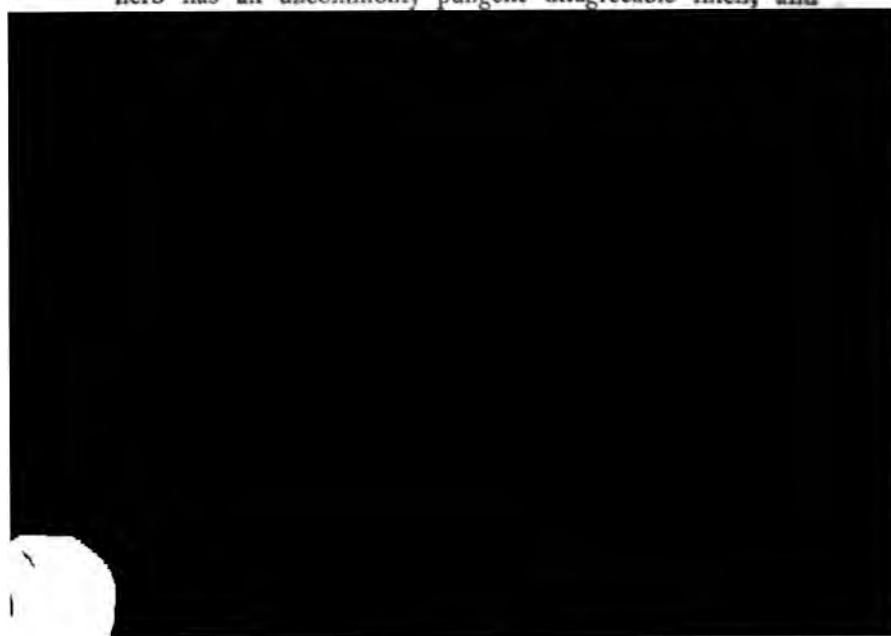
GEN. CHAR. *Calyx* nearly salver-shaped, with five teeth and ten ribs. *Upper lip* of the *Corolla* concave, notched.

SPEC. CHAR. Leaves heart-shaped, undivided, serrated. Divisions of the calyx tapering gradually to a point.

SYN. *Ballota nigra.* *Linn. Sp. Pl.* 814. *Huds. Fl. An.* 260. *With. Bot. Arr.* 615. *Relb. Cant.* 231.

Ballotte. *Raii Syn.* 244.

ABUNDANT every where in hedges and waste ground, flowering throughout the summer very copiously. The whole herb has an uncommonly pungent disagreeable smell, and









MARRUBIUM vulgare.

*White Horehound.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Calyx* salver-shaped, rigid, with 10 furrows. Upper lip of the *corolla* cloven, linear, straight.

SPEC. CHAR. Teeth of the *calyx* ten, bristle-shaped, hooked.

SYN. *Marrubium vulgare.* Linn. *Sp. Pl.* 816. *Huds. Fl. An.* 261. *With. Bot. Arr.* 617. *ed. 3. v. 3.* 533. *Relh. Cant.* 232. *Sibth. Ox.* 187. *Woodv. Med. Bot. t.* 97.

M. album. *Raii Syn.* 239.

FREQUENT on waste ground among rubbish, particularly in very dry situations, where it flowers copiously during the latter part of summer, even though frequently covered with the dust of high-roads, and exposed to the most burning sun. From the last it is protected, like a great many Cretan and African plants, by a thick fine coat of woolly hoariness, enveloping all the green parts of the herb. This kind of clothing seems intended by nature rather as a protection from heat than cold; and yet it is difficult to account for its being found most abundantly on the *under* sides of some leaves, while the *upper*, exposed to the sun, are naked.

The root is perennial, and woody. Stems several, branching from the bottom, and altogether forming a round bush; in the upper part they are simple, square, bearing several pairs of roundish or ovate, wrinkled, unequally serrated leaves, on shortish footstalks. The flowers grow in thick axillary whorls. *Calyx* with ten furrows, and as many bristly strong hooked teeth, which attach themselves to the coats of animals. *Corolla* white, the lower lip in three segments, the side ones small and sharp, the middle one large, inversely heart-shaped and slightly notched.

This plant is aromatic and very bitter. The latter flavour only remains in the extract, which was formerly a scholastic medicine, and is now a popular one, for coughs and asthmas. Most quack medicines are what orthodox practitioners have laid aside, sometimes with reason, sometimes from accident.



Pl. reg. Bot. 1816. 11. P. 10. 11. 12.



LEONURUS Cardiaca.

Motherwort.

DIDYNAMIA Gymnospermia.

GEN. CAHR. *Calyx* 5-angled. *Antheræ* sprinkled
with shining dots. *Upper lip* of the *corolla* shaggy,
concave.

SPEC. CHAR. Stem-leaves lanceolate, 3-lobed.

SYN. *Leonurus Cardiaca*. *Linn. Sp. Pl.* 817. *Huds.*
Fl. An. 261. *With. Bot. Arr.* 618. *Relh. Cant.*
232.

Cardiaca. *Raii Syn.* 239. *Ger. em.* 705.

ITS proper situation is on banks and under hedges in a gravelly or calcareous soil, not on dunghills, except by accident, as Mr. Woodward remarks. It occurs here and there in Norfolk and Suffolk. Mr. Lightfoot found it in Monmouthshire. Our specimen grew in a lane near Combe wood, Surrey.





Sp. 1793. *Salvia* L. f. *Salvia* L.

CLINOPODIUM vulgare.

Wild Basil.

DIDYNAMIA *Gymnospermia.*

GEN. CHAR. *Cal.* 2-lipped. *Involucrum* of many taper leaves placed under the whorl.

SPEC. CHAR. Whorls hairy. Floral leaves bristle-shaped. Flower-stalks branched. Leaves slightly serrated.

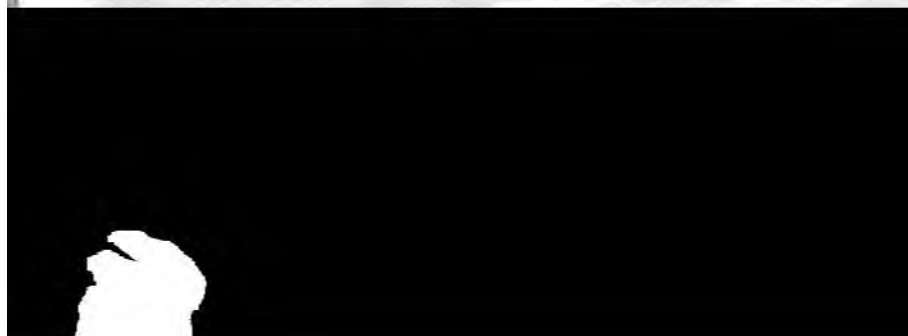
SYN. *Clinopodium vulgare.* *Linn. Sp. Pl.* 821. *Sm. Fl. Brit.* 638. *Huds.* 261. *With.* 535. *Hull.* 135. *Relh.* 236. *Sibth.* 188. *Abbot.* 132.

C. origano simile. *Raii Syn.* 239.

NOT uncommon in bushy places by road sides where the soil is calcareous or gravelly, blossoming from July to the end of autumn. Our specimen was gathered in a lane at Saham, Norfolk, in September last.

Root perennial, fibrous or somewhat creeping. Stems wavy, but not regularly zigzag, hairy, with four bluntish angles. Leaves on stalks, ovate, rather obtuse, slightly serrated, hairy, especially at the back of the veins, where the hairs form a regular fringe. Whorls terminal and axillary, not many, but composed of numerous red flowers, which stand on branched hairy stalks. These bear, at the foot of the little stalks on which the flowers stand, several setaceous hairy leaves, called by Linnæus an *involucrum* in his generic character, and *bractææ* in his specific one, and to which he was obliged to have recourse (as in the umbelliferous tribe) for forming his generic character; a character natural and certain enough, if not rigidly conformable to his own laws. Like a true philosopher, he *sometimes* sacrificed them to truth, no philosopher ever did *so always*. Calyx ribbed and hairy; its lower teeth longest and most prominent. Corolla twice as long as the calyx, handsome, with 2 hairy knobs at the orifice. The whole herb is aromatic, with a faint thyme-like odour.







ORIGANUM vulgare.

Common Marjoram.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Calyces* collected, by imbricated *bractæ*, into a spicate, quadrangular *cone*.

SPEC. CHAR. Spikes roundish, paniced, clustered, smooth. *Bractæ* ovate, longer than each calyx.

SYN. *Origanum vulgare.* *Linn. Sp. Pl.* 824. *Sm. Fl. Brit.* 639. *Huds.* 262. *With.* 535. *Hull.* 134. *Relb.* 237. *Sibth.* 188. *Abbot.* 132. *Curt. Lond. fasc.* 5. t. 39. *Woodv. Med. Bot.* t. 164. *O. vulgare spontaneum.* *Raii Syn.* 236.

AS a grateful and stimulating aromatic this plant is infinitely more worthy of notice than the preceding, and accordingly is retained, at least among rural practitioners, as well as for culinary uses, though for the latter the more fragrant *O. Majorana* is preferred in the neighbourhood of London.

O. vulgare grows plentifully on chalky or limestone soils, sometimes on gravel, in bushy or woody places, flowering in









THYMUS Serpyllum.

Wild Thyme.

DIDYNAMIA *Gymnospermia.*

GEN. CHAR. *Cal.* 2-lipped, its orifice closed with hairs.
Upper lip of the *corolla* flat, notched.

SPEC. CHAR. Flowers in small heads. Stems decumbent. Leaves flat, ovate, obtuse; fringed at the base.

SYN. *Thymus Serpyllum.* *Linn. Sp. Pl.* 825. *Sm. Fl. Brit.* 639. *Huds.* 262. *With.* 536. *Hull.* 133. *Relh.* 237. *Sibth.* 188. *Abbot.* 132. *Curt. Lond. fasc. 2. t. 47.*

Serpyllum vulgare. *Raii Syn.* 230.

WILD THYME clothes many a heath and hillock, in dry or gravelly countries, with its purple blossoms during the summer months. Its entangled branches form an elastic turf, and the bruised leaves when trodden upon diffuse a warm aromatic odour. Bees frequent the flowers in great numbers. The flavour of mutton is supposed to be improved by the sheep feeding on this plant.

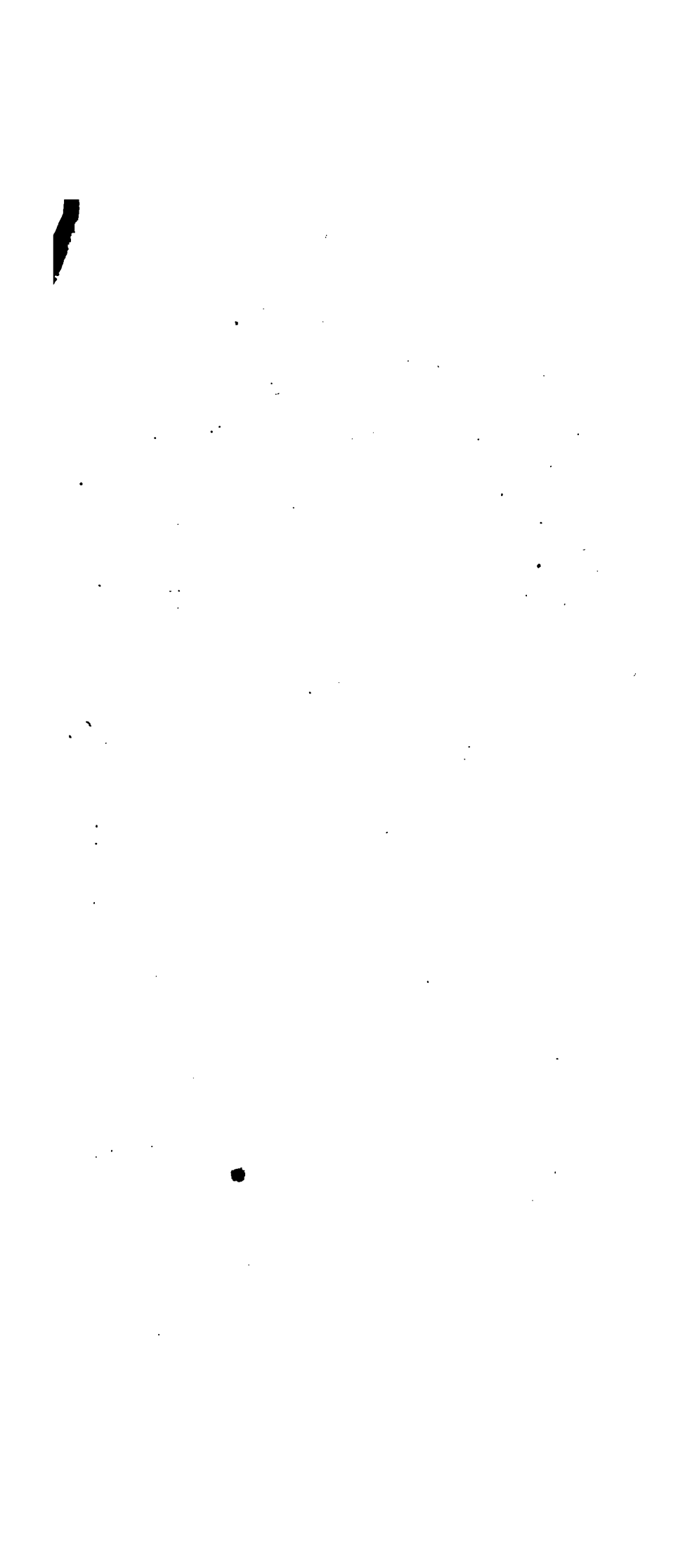
The roots are fibrous, perennial and creeping. Stems shrubby, slender, branched, procumbent, leafy, downy, often reddish. Leaves elliptic-ovate, flat, entire, obtuse, sprinkled with resinous dots, coarsely fringed at the base, as are also their footstalks throughout. Heads of flowers terminal, leafy. Flowers on shortish hairy stalks. Calyx ribbed, dotted, purple, most hairy underneath; its two lower teeth prominent, narrow and fringed; its mouth closed with dense white hairs. Corolla purple; lower lip variegated, deeply 3-cleft. Stamina divaricated. Seeds not often perfected.

Authors notice several varieties of this species, differing chiefly in size and uprightness. It sometimes occurs very hairy, and is often infested with hairy swellings caused by an insect. The lemon-scented variety is common in gardens, though rarely found wild.



Oct 1 1868. Published by W. Sowerby, London.





THYMUS Acinos.

Basil Thyme.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Calyx* two-lipped, its orifice closed with hairs.

SPEC. CHAR. Flowers on simple flower-stalks, about six in a whorl. Stem ascending, branched. Leaves acute, serrated. *Calyx* gibbous at the base.

SYN. *Thymus Acinos.* Linn. *Sp. Pl.* 826. Huds. *Fl. An.* 263. With. *Bot. Arr.* 624. ed. 3. v. 3. 537. Relh. *Cant.* 235. Sibth. *Ox.* 189. Curt. *Lond. fasc.* 1. t. 43. Dicks. *H. Sicc. fasc.* 11. 8.

Acinos multis. Rar. *Syn.* 238.

FOUND in dry hilly fields, more especially on a chalky soil, common about Dartford and other parts of Kent, and not rare in Norfolk, flowering in July and August.

Root annual, composed of a tuft of small fibres. Stems branched, spreading in every direction, but the upper parts are erect. Leaves on short footstalks, ovate, varying to roundish or oblong, acute, more or less deeply and copiously serrated, veiny, hairy, as indeed is the whole herb. Ray justly observes that the leaves are sometimes quite entire; very frequently they have only a single notch on each side. The upper ones taper very much at the base. Flowers about 6 in a whorl, each on a foot-stalk various in length. *Calyx* swelling at the base on the lower side, deeply furrowed, the prominent ribs fringed with bristly hairs; upper lip erect, in 3 broadish nearly equal segments; lower lip projecting, in 2 narrow sharp ones. The orifice is fringed internally with white hairs, which pointing inwards completely close it when the corolla is fallen, but these hairs are equally evident in *Melissa*. Tube of the corolla dilated upwards; upper lip notched; the lower in three blunt segments, the middle one obcordate, marked at the base with white, and a spot or two of darker purple than the rest of the flower.

This plant is aromatic, though sometimes very slightly so.

The swelling at the base of the calyx, observed by Mr. Curtis, is to be found also in *T. alpinus*, though not so considerable.







THYMUS Calamintha.

Common Calamint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 2-lipped, its orifice closed with hairs.
Upper lip of the *corolla* flat, notched.

SPEC. CHAR. Whorls on footstalks, forked, many-flowered. Leaves with shallow serratures. Hairs in the mouth of the calyx not prominent.

SYN. Thymus Calamintha. *Sm. Fl. Brit.* 641. *Relh.* 238.
Melissa Calamintha. *Linn. Sp. Pl.* 827. *Huds.* 263.
With. 538. *Hull.* 135. *Sibth.* 189. *Abbot.* 133.
Calamintha vulgaris. *Raii Syn.* 243.

THIS kind of Calamint occurs here and there about the borders of fields, hedge banks and road sides, on a gravelly soil, but is seldom found in any quantity together. It flowers from August to the very end of Autumn, and is perennial.

Though evidently distinct from *T. Nepeta*, *t.* 1414, and remarkable for its peculiar sweet and fragrant scent, the specific difference is not easily defined. The leaves of this are larger, with smaller serratures. Stem more constantly erect and bushy. Lower flowerstalks shorter than the leaves, and not so repeatedly nor regularly dichotomous as in the other. The white hairs which close the orifice of the calyx are by far less prominent, as well as less dense and conspicuous, than in *T. Nepeta*. The upper lip of the corolla is slightly concave, with reflexed edges.

The flavour of this species is much less like Pennyroyal. Its infusion is of a wholesome stomachic quality, and may be used as tea, like mint, balm or sage.

1676.



Described & Published by J^r Jorvisy, London.



THYMUS Nepeta.

Lesser Calamint.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 2-lipped, its orifice closed with hairs.
Upper lip of the *corolla* flat, notched.

SPEC. CHAR. Whorls on foot-stalks, forked, many-
flowered, longer than the leaf. Leaves serrated.
Hairs in the mouth of the calyx prominent.

SYN. Thymus Nepeta. *Sm. Fl. Brit.* 642. *Relh.* 239.

Melissa Nepeta. *Linn. Sp. Pl.* 828. *Huds.* 263.
With. 538. *Hull.* 135. *Sibth.* 190. *Curt. Lond.*
fasc. 6. t. 40.

Calamintha odore Pulegii. *Raii Syn.* 243.

A NATIVE of dry calcareous hills and banks, about villages
and by road sides, where it is generally found in abundance if
at all. Our specimens were gathered near Saham church,
Norfolk. It is a perennial plant, and flowers copiously in
August and September.

Root somewhat creeping. Stems ascending, branched,
square, rough, as is the whole herb. Leaves on foot-stalks,
opposite, with a few broad serratures. Flower stalks axillary.



11

12



MELITTIS Melissophyllum.

Reddish Bastard-Balm.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* unequal, wider than the tube of the corolla. *Cor.* upper lip flat; lower three-lobed, crenate. *Anthere* cohering cross-wise.

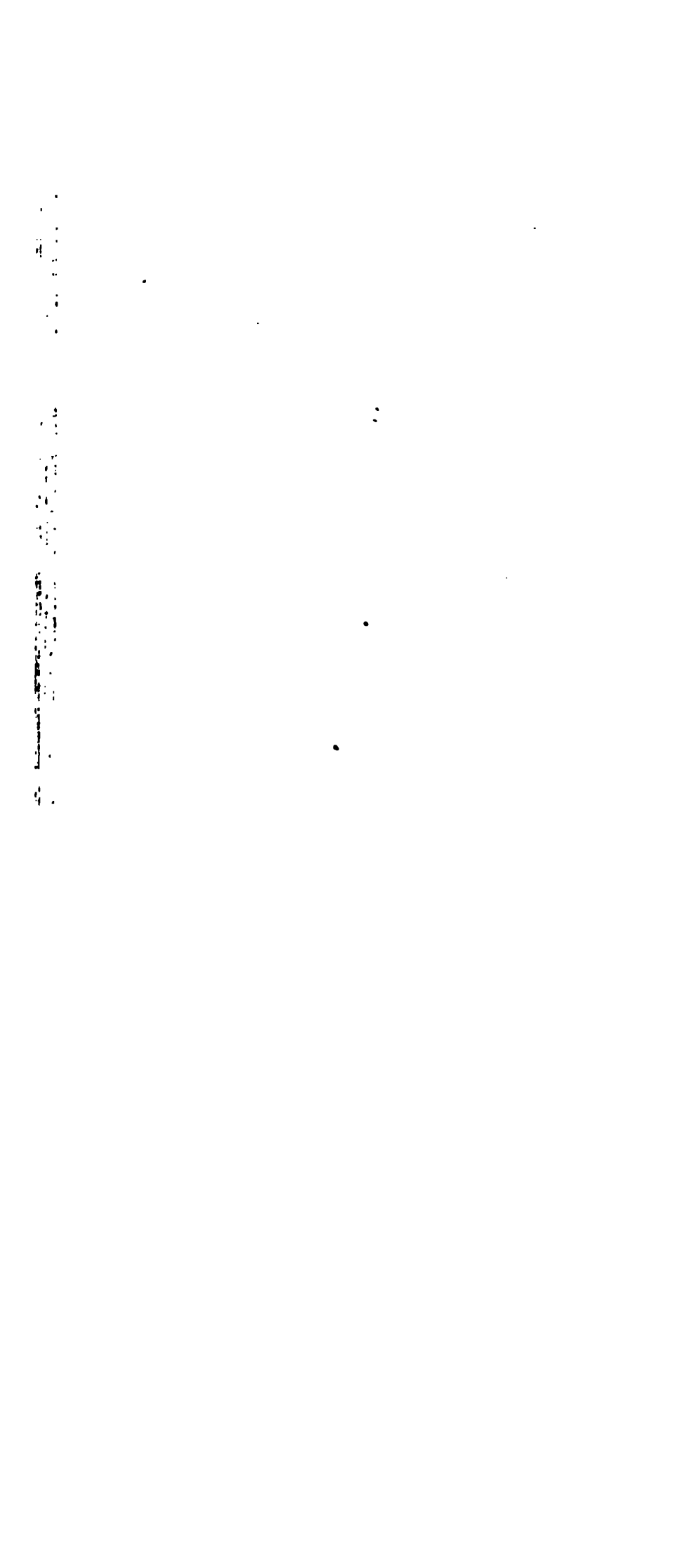
SPEC. CHAR. Calyx three-lobed.

SYN. Melittis Melissophyllum. *Lim. Sp. Pl.* 832. *Huds.* 264. *With.* 539.

Melissā Fuchsi. *Rau Syn.* 242. *Camer. Hort.* t. 30.

THIS beautiful plant is found in woods and hedges in several parts of the West of England; Ray says about Totness, Devonshire, and Haverford-west, Pembrokehire; and Hudson in the New Forest. Specimens gathered by Mr. Lightfoot in St. Leonard's Forest, Suffex, and near Netley Abbey, Hampshire, are in his herbarium at Frogmore, and exactly agree with ours, which is the produce of a root brought by Mr. Hudson from the West to Chelsea-garden, where it continues unaltered by culture. Another most distinct species, whose calyx is four-lobed, and corolla different in size and colour from this, has been figured by Mr. Curtis as the English kind, *Fl. Lond. fasc. 6. t. 29.* If therefore he has not confused himself with







MELITTIS grandiflora.

Purple and white Bastard-Balm.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* unequal, wider than the tube of the corolla. *Cor.* upper lip flat; lower three-lobed, crenate. *Antberæ* cohering cross-wise.

SPEC. CHAR. Calyx four-lobed.

SYN. Melittis Melissophyllum. *Curt. Lond. fasc.* 6, *t.* 39. *Mill. Illustr. t.* 52.

Melissa Fuchsii flore albo. *Ger. em.* 690.

WITH great pleasure we here confirm the suspicion advanced in p. 577 of this work, that there are two species of *Melittis* natives of England. The wild specimen here delineated was gathered in the middle of June last by Mr. D. Turner and Mr. Sowerby, who found the plant in great plenty about a





Salvia officinalis L. var. *officinalis* L.





SCUTELLARIA *galericulata*.*Common Skull-cap.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cal.* rim nearly entire, closed and covered with a lid after flowering.

SPEC. CHAR. Leaves heart-lanceolate, crenate, rugged. Flowers axillary.

SYN. *Scutellaria galericulata*. *Linn. Sp. Pl.* 835. *Huds.* 265. *With.* 540. *Relh.* 236. *Sibtb.* 190. *Curt. Lond. fasc. 2. t. 35.*

Cassida palustris vulgatiore, flore cæruleo. *Raii Syn.* 244.

COMMON about ditches and reedy rivulets, flowering in July and August.

The root is perennial and creeping. Stem erect, generally branched about the middle, thickly clothed with leaves to the top, square, roughish. Leaves opposite, spreading, on short footstalks, lanceolate, heart-shaped at the base, regularly and equally crenate to very near the point, rugged, veiny, clothed with very short hairs, paler beneath. Stipulae none. Flowers axillary.



Salvia gmelina L.





SCUTELLARIA minor.

*Lesser Skull-cap.**DIDYNAMIA Gymnospermia.*

GEN. CHAR. *Cal.* rim nearly entire, closed and covered with a lid after flowering.

SPEC. CHAR. Leaves heart-ovate, nearly entire. Flowers axillary.

SYN. *Scutellaria minor.* *Linn. Sp. Pl.* 835. *Huds.* 265. *With.* 540. *Curt. Lond. fasc.* 4. t. 43. *Dicks. H. Sicc. fasc.* 5, 6.

Cassida palustris minima, flore purpurascente. *Raii Syn.* 244.

A MUCH rarer plant than the last. It is however found on several moist heaths near London, as well as in Norfolk, and the more mountainous counties, flowering about August.

Root creeping, perennial. Whole habit much resembling the *S. galericulata*, but it is in every part a smaller plant; the stem is branched more from the bottom, the leaves broader in proportion to their length, and not rugged; they are for the most part perfectly entire, though sometimes found with a deep notch or two at their base, so as to become somewhat hastate. This variety was first pointed out to us on Barnes Common by G. Hibbert, Esq. F.L.S. Mr. Curtis has figured the entire leaves only. The flowers are not half so large as in the *galericulata*, and of a delicate pink colour, rarely blueish; their lip white spotted with red.

This hastate variety confirms the accuracy of Linnæus's remark concerning the great affinity between this species, the *galericulata*, and the *hastifolia*. The latter indeed cannot be confounded with this, having real hastate leaves, and being as large in all its parts as the *galericulata*, from which it is known at first sight by the leaves not being crenate.

524.





PRUNELLA vulgaris.

Self-heal.

DIDYNAMIA *Gynnospermia.*

GEN. CHAR. *Filaments* forked, one point bearing the *anthera*. *Stigma* cloven.

SPEC. CHAR. All the leaves ovate-oblong, on foot-stalks.

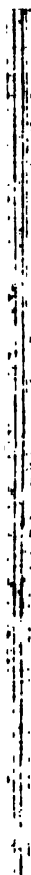
SYN. *Prunella vulgaris.* *Linn. Sp. Pl.* 837. *Sm. Fl. Brit.* 646. *Huds.* 264. *Witt.* 541. *Hull.* 134. *Relb.* 236. *Sibth.* 190. *Abbot.* 133. *Curt. Lond. fasc.* 4. t. 42. *Mart. Rust. t.* 137.

Prunella. Raii Syn. 238.

THE common *Prunella* grows in open airy pastures, flowering in July and August. The meaning of the English name *Self-heal* is not very clear, and *self* probably is a corruption of some word now forgotten; perhaps *slough*, for the healing powers of the herb are particularly celebrated in sore throats and ulcers of the mouth and fauces; which Ray tells us are called *Die Breune* in German. Hence comes the name *Br-nella*, softened by Linnæus into *Prunello*, but still confessing its barbarous origin.



Salvia officinalis L.



2. The *Journal of the American Medical Association* (JAMA) is a leading medical journal. It is published weekly and contains a wide range of articles on medical topics. The journal is known for its high quality and its focus on clinical research.

BARTSIA alpina.

Alpine Bartsia.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Calyx* in 4 lobes, coloured. *Cor.* ringent, with a contracted orifice: upper lip notched, concave, longest; lower in 3 nearly equal lobes. *Caps.* ovate, compressed, with 2 cells, and many angular seeds.

SPEC. CHAR. Leaves opposite, heart-shaped, bluntly serrated.

SYN. *Bartsia alpina.* *Linn. Sp. Pl.* 839. *Huds. Fl. An.* 267. *With. Bot. Arr.* 633. *Dicks. H. Sicc. fasc.* 10. 14.

Euphrasia rubra Westmorlandica, foliis brevibus obtusis. *Raii Syn.* * 235.

Clinopodium alpinum. *Ger. em.* 676.

THE wild recent specimens of this very rare plant, from which our drawing was taken, were gathered July 27, 1796, near Middleton in Teesdale, Durham, by the Rev. Mr. Hariman, and Mr. Oliver surgeon, of Middleton, and sent us by our liberal correspondent Mr. E. Robson. Ray and Hudson found this *Bartsia* near Orton in Westmorland, and Mr. Dickson first observed it in Scotland. It prefers a moist stony soil, on the borders of alpine rills, or little boggy spots in the interstices of rocky precipices, flowering after the middle of summer, and soon ripening its seed.

The root is perennial and creeping. Stems from 4 to 8 inches high, erect, simple, square, clothed from top to bottom with several pair of opposite sessile leaves, which are ovate or heart-shaped, acute, strongly serrated and veined, smooth above, hairy beneath; the lowermost are very small; the uppermost coloured with purple, and out of the bosoms of these the flowers arise solitary, on very short flower-stalks, forming a terminal leafy spike. The calyx is viscid and hairy, in 4 nearly equal segments, tipped with purple. Corolla of a violet purple, thrice as long as the calyx, compressed, clothed with glandular viscid hairs; the lower lip reflexed. Antheræ prominent, very hairy. Style projecting beyond the stamina, with a blunt stigma. Capsule ovate, downy, of two valves, with a transverse partition arising from each. Seeds numerous, angular, with membranous striated angles, more akin to those of *Rhinanthus* than to those of *Melampyrum*, with which last genus the flower of *Bartsia* has great affinity.

The whole herb turns very black in drying, especially when rather young.



Abstract



[1045]

BARTSIA viscosa.

Yellow Viscid Bartsia.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 4 lobes, mostly coloured. *Cor.* ringent, with a contracted orifice : *upper lip* concave, longest ; *lower* in 3 equal reflexed lobes. *Caps.* ovate, compressed, with 2 cells, and many angular *seeds*.

SPEC. CHAR. Leaves serrated : the upper ones alternate. Flowers lateral and distant. *Antheræ* hairy.

SYN. *Bartsia viscosa.* *Linn. Sp. Pl.* 839. *Sm. Fl. Brit.* 648. *Huds.* 267. *With.* 541. *Hull.* 136. *Lightf.* 321. *t.* 14. *Dickf. Dr. Pl.* 72.

Euphrasia major lutea latifolia palustris. *Raii Syn.* * 285.

GATHERED by S. Hailstone, esq. near Blackpool and Scarsbrick, Lancashire, flowering in July and August. It is one of our rarest plants, having been found chiefly in marshy parts of Devonshire and Cornwall, and in Argylshire.

Root annual. Herb downy and viscid, drying black. Stem almost always simple, erect, various in height, round, leafy. Leaves sessile, oblong or somewhat ovate, ribbed, rough, deeply toothed or serrated ; the lowermost opposite ; the rest alternate.





Scilla bellina L. *Scilla bellina* L.





BARTSIA Odontites.

Red Bartsia.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 4 lobes, mostly coloured. *Cor.* ringent, with a contracted orifice: *upper lip* concave, longest; *lower* in 3 equal reflexed lobes. *Caps.* ovate, compressed, with 2 cells, and many angular *seeds*.

SPEC. CHAR. Leaves lanceolate, serrated; the upper ones alternate. Flowers racemose, leaning one way. *Antheræ* smoothish.

SYN. *Bartsia Odontites.* *Huds.* 268. *Sm. Fl. Brit.* 648. *Relh.* 240.

Euphrasia Odontites. *Linn. Sp. Pl.* 841. *With.* 543. *Hull.* 137. *Sibth.* 192. *Abbot.* 135. *Curt. Lond. fasc.* 1. *t.* 44. *Mart. Rust. t.* 42.

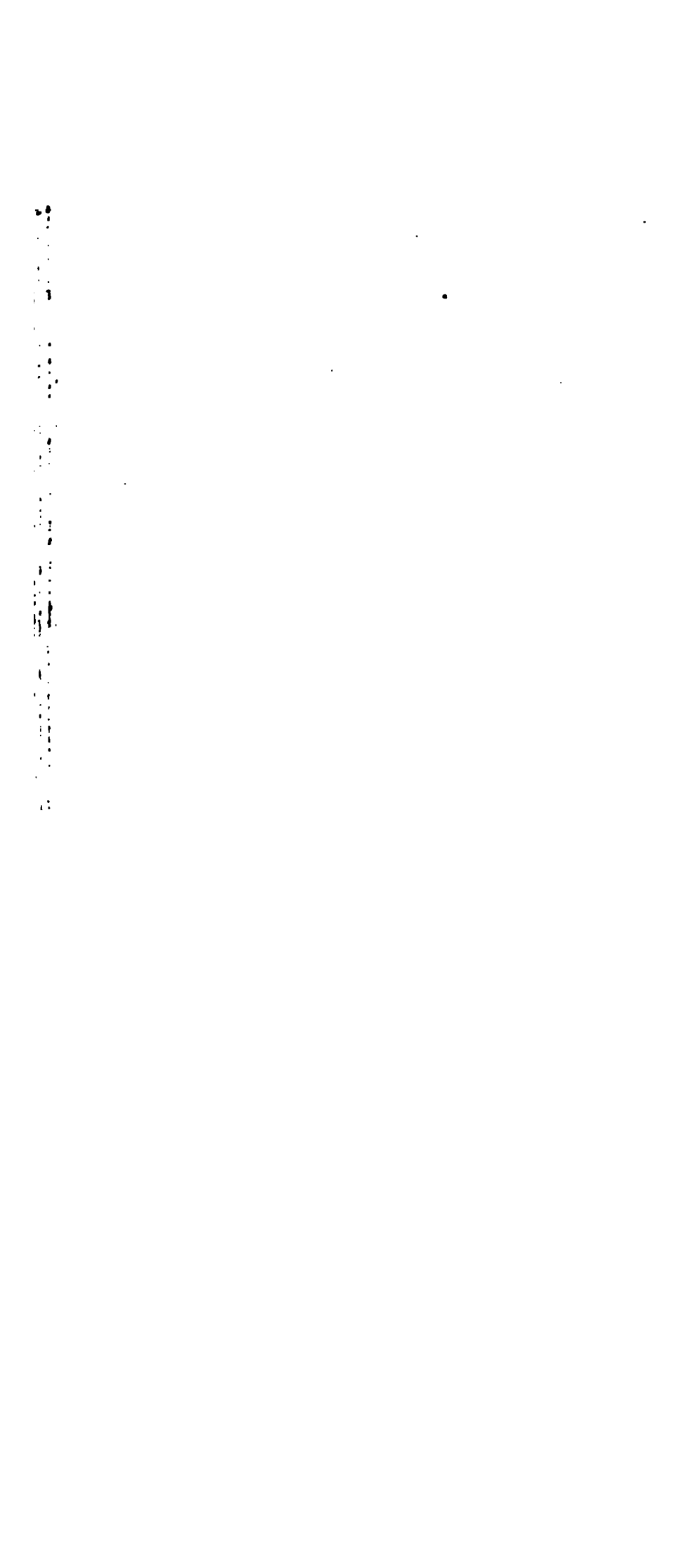
E. pratensis rubra. *Raii Syn.* *284.

THIS plant is not uncommon in corn fields, as at Battersea, &c., flowering in July and August. It prefers rather a strong





Feb. 1. 1868. Zephyrus Dr. W. J. Smith London.





RHINANTHUS Crista-galli.

*Yellow Rattle.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* inflated, 4-toothed. Upper lip of the *Corolla* compressed. *Caps.* of 2 cells, blunt, compressed. *Seeds* imbricated, flat.

SPEC. CHAR. Upper lip of the corolla arched. Calyx smooth. Leaves lanceolate, ferrated.

SYN. *Rhinanthus Crista-galli.* *Linn. Sp. Pl.* 840. *Huds.* 268. *With.* 542. *Hull.* 137. *Rehb.* 238. *Sibth.* 192. *Abbot.* 134. *Curt. Lond. fasc.* 5. t. 43. *Mart. Fl. Rus.* t. 148.

Pedicularis, seu Crista galli lutea. *Raii Syn.* 284.

FREQUENT in meadows and pastures, flowering in June. Root fibrous, annual. Stem upright, a foot or more in height, branched, smooth, quadrangular, leafy, often spotted with red. Leaves opposite, sessile, lanceolate, heart-shaped at the base, rough, very sharply ferrated. Spike terminal, leafy. Flowers not always strictly opposite, on short stalks. Calyx bladdery, with strong ribs and a net-work of veins, of a pale greenish yellow, smooth, permanent; its orifice contracted. Corolla twice as long as the calyx, yellow; its upper lip arched, compressed, tipped with 2 blue spots; its lower in 3 equal lobes. Anthers awn-less, but very hairy. Capsule dry and membranous. Seeds with a membranous border.

This plant, though to be found in almost every hay-stack, is supposed not to be of any peculiar agricultural use.

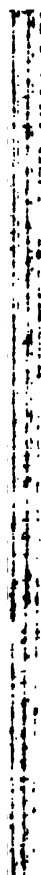
We cannot clearly distinguish which of Ehrhart's 2 species of *Rhinanthus* (see Dr. Hall's *Flore*) this may be. Ours has generally a spotted stem, and the calyx is smooth, if by that term is meant its being free from hair, glabrous; if free from inequality, level, it is not so. The style is in an early state shorter than the corolla, afterwards often longer.

We know not Ehrhart's plant, the *R.* of Hudson, nor whether it may be Ehrhart's *R. major* or *minor*.

637



Salvia officinalis L.



59.
[1416]

EUPHRASIA officinalis.

Eye-Bright.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* cylindrical, 4-toothed, equal. *Upper lip* of the *corolla* divided; *lower* of 3 cloven lobes. *Antheræ* bearded with unequal spines. *Caps.* ovate-oblong. *Seeds* striated.

SPEC. CHAR. Leaves ovate, furrowed, sharply toothed.

SYN. *Euphrasia officinalis.* *Linn. Sp. Pl.* 841. *Sm. Fl. Brit.* 650. *Huds.* 269. *With.* 543. *Hull.* 136. *Relh.* 242. *Sibth.* 192. *Abbot.* 134. *Curt. Lond. fasc. 5. t. 42.* *Woodv. Suppl. t. 220.*

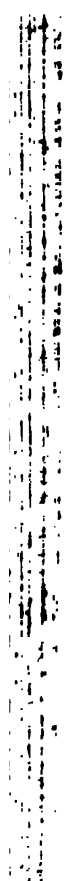
Euphrasia. Raii Syn. *284.

"FAM'D Euphrasy may not be left unsung,
That gives dim eyes to wander leagues around."

So at least thought Shenstone's shool-mistress, and we wish experience could confirm the tale of antient times, which seems to have arisen from the brilliant eye-like blossoms of this little plant, which do indeed attract the sight at a considerable distance, and their beauty gratifies the eyes of the







MELAMPYRUM cristatum.

Crested Cow-wheat.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compressed, turned back at the margin. *Capsule* two-celled, oblique, bursting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Spikes quadrangular. Bractæ heart-shaped, imbricated, compact, denticulated.

SYN. *Melampyrum cristatum.* *Linn. Sp. Pl.* 842. *Huds. Fl. An.* 269. *Witb. Bot. Arr.* 638. *Relb. Cant.* 240.

Melampyrum cristatum, flore albo & purpureo. *Raii Syn.* *286.

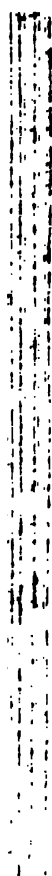
COMMUNICATED from Madingley wood, Cambridgeshire, by the Rev. Mr. Sutton.

The species of this genus, although for the most part re-





Salvia officinalis L. 1746.





MELAMPYRUM arvense.

Purple Cow-wheat.

DIDYNA MIA *Angiosperma.*

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compressed, turned back at the margin. *Capsule* two-celled, oblique, bursting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Spikes conical, loose. Bractæas fringed with narrow taper teeth.

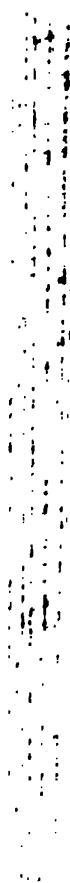
SYN. *Melampyrum arvense.* *Lim. Sp. Pl.* 842. *Huds. Fl. An.* 270. *Witb. Bot. Arr.* 638. *Dickson's Dried Plants, No.* 74.

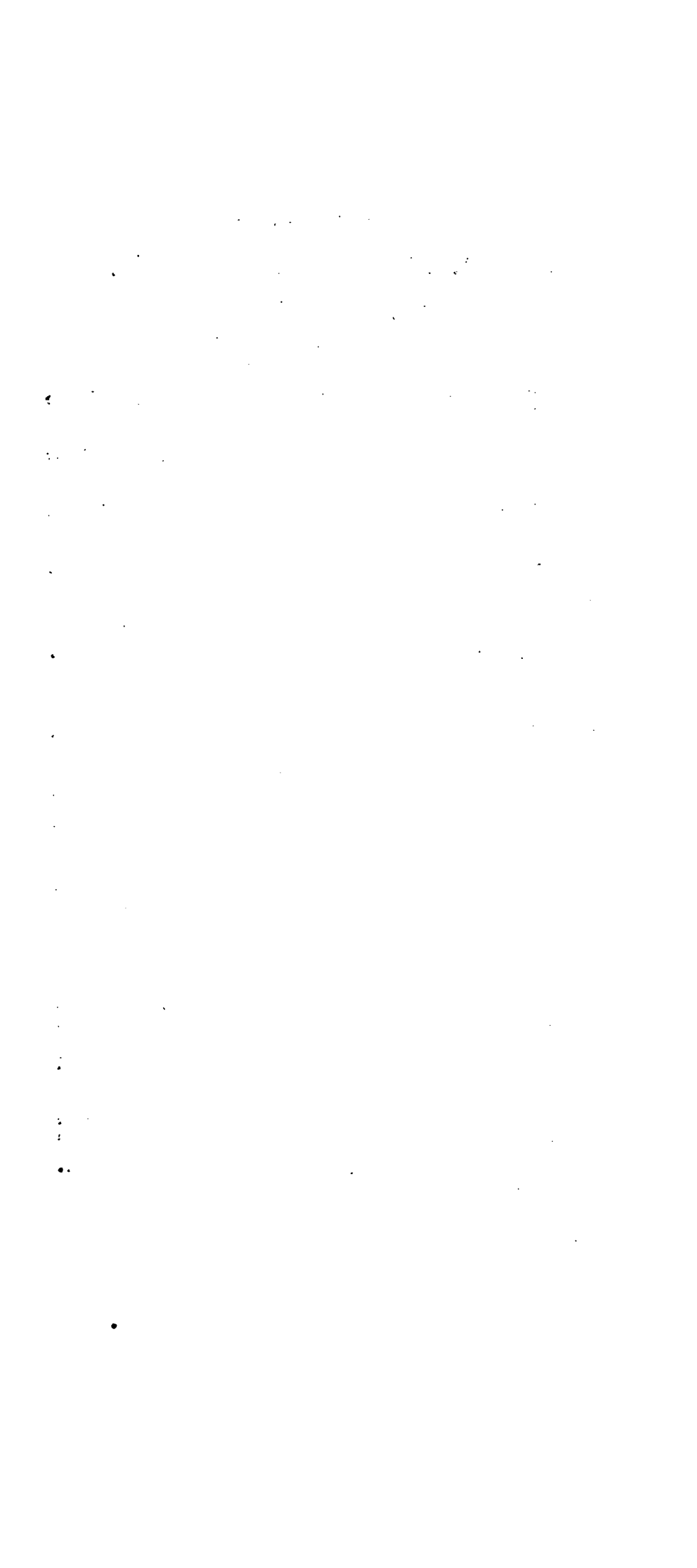
M. purpurascens coma. *Raii Syn.* * 286.

THIS, though a rare plant, occurs occasionally in corn-fields in several parts of England, flowering in July and August.

One specimen came from Calais, near Nieuport.







MELAMPYRUM pratense.

Common Yellow Cow-wheat.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compressed, turned back at the margin. *Capsule* two-celled, oblique, bursting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Flowers lateral, leaning one way. Leaves in distant pairs. *Corolla* closed.

SYN. *Melampyrum pratense*. *Lim. Sp. Pl.* 843.
Lightf. Fl. Scot. 324. *With. Bot. Arr.* 639.

M. sylvaticum. *Huds. Fl. An.* 270.

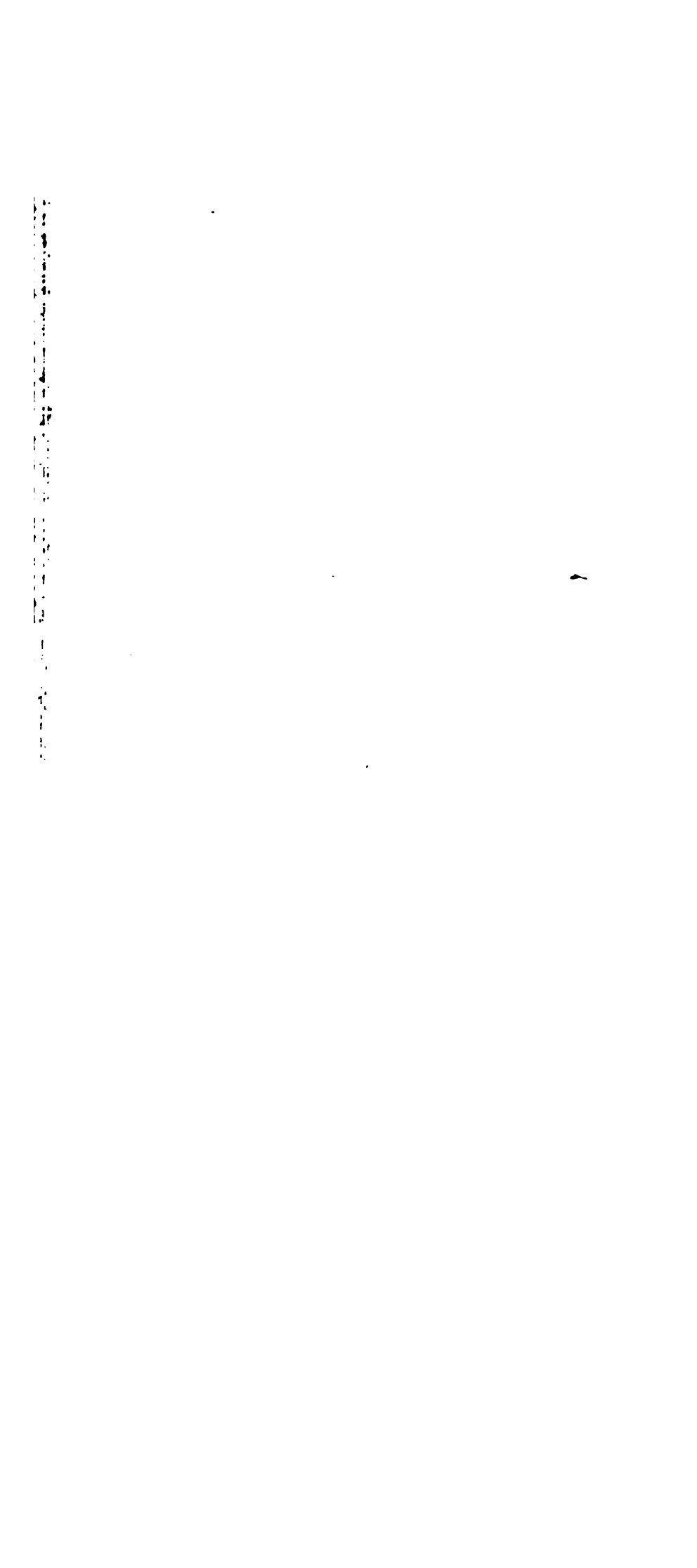
M. sylvat. flore luteo, five satureja lutea sylvestris.
Raii. Syn. * 286.

MANY people, with the late Mr. Hudson**, mistake this for the *M. sylvaticum*, apparently because it grows generally in groves and thickets; but the true *sylvaticum* is a native chiefly of alpine forests, and has much smaller flowers, the orifice of whose corolla is much more gaping.

Root branched, annual. Stem slender, divided into several opposite spreading branches, the largest uppermost, the terminal one first producing several pairs of flowers, accompanied towards the top by dentated purplish bracts. *Corolla* pale at



Salvia officinalis L.





MELAMPYRUM *sylvaticum*.

Wood Cow-wheat.

DIDYNAMIA *Angiospermia*.

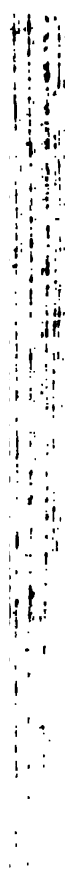
GEN. CHAR. *Cal.* tubular, 4-cleft. Upper lip of the *corolla* compressed, turned back at the margin. *Caps.* 2-celled, oblique, bursting at one edge. *Seeds* 2, gibbous.

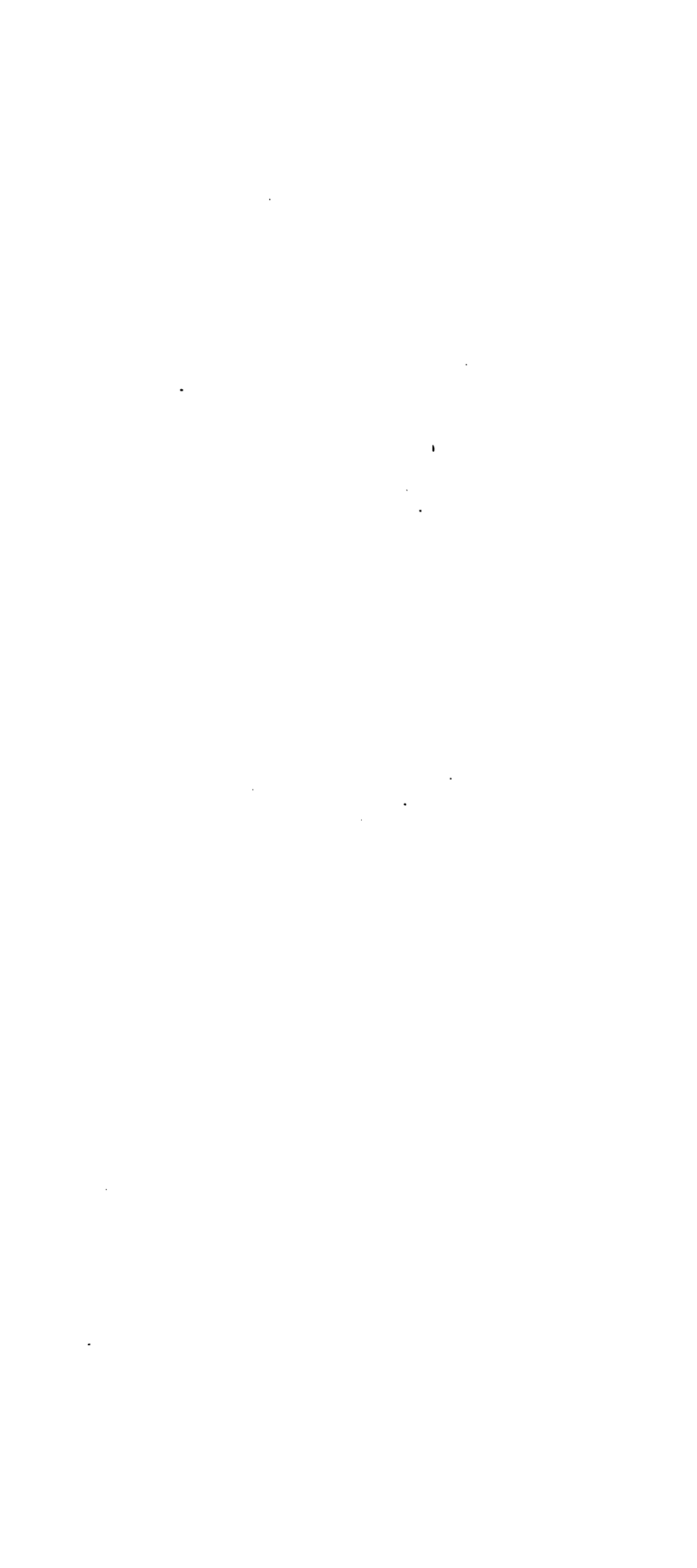
SPEC. CHAR. Flowers lateral, leaning one way. Leaves in distant pairs. *Corolla* open, with its lip bent downwards.

SYN. *Melampyrum sylvaticum*. *Linm. Sp. Pl.* 843. *Sm. Fl. Brit.* 653. *Lightf.* 325. *Witb.* 546. *Hull.* 137. *Fl. Dan. t.* 145.

IT appears that this *Melampyrum* was not known to Mr. Hudson. What he called *M. sylvaticum* is the common *pratense*, see our *t.* 113; and his *pratense*, adopted from Ray, is undoubtedly, as Dr. Withering first suggested, only a variety of the same. Mr. Lightfoot's herbarium proves the Scottish *sylvaticum* to be right, and our wild specimens sent from the county of Durham by the Rev. Mr. Harriman, as well as







L A T H R Æ A Squamaria.

Greater Tooth-wort.

D I D Y N A M I A *Angiospermia.*

GEN. CHAR. *Calyx* four-cleft. A depressed *gland* at the base of the future of the germen. *Capsule* of one cell.

SPEC. CHAR. Stem perfectly simple. Flowers pendulous; their lower lip three-cleft.

SYN. *Lathræa Squamaria.* *Linn. Sp. Pl.* 844. *Hudj. Fl. An.* 266. *With. Bot. Arr.* 642.

Anblatum Cordi five Aphyllon. *Raii Syn.* 288*.

GATHERED by the Earl of Gainsborough, in the neighbourhood of his Lordship's seat at Exton, near Stamford. The flowers appear in April, emerging from decayed leaves of trees, among which the plant is mostly found half buried. The root is parasitical, and is generally attached to the roots of elms, hawels, or some other tree, in a shady situation.

Having lately (tab. 48.) given a figure of the *Ophrys Nidus*







PEDICULARIS palustris.

*Marsh Lousewort.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* (mostly) with 5 clefts. *Caps.* pointed, oblique, with 2 cells. *Seeds* few, angular, pointed.

SPEC. CHAR. Stem solitary, branched. Calyx ovate, hairy, ribbed, in two notched divisions.

SYN. *Pedicularis palustris.* Linn. *Sp. Pl.* 845. Huds. *Fl. An.* 270. With. *Bot. Arr.* 643. Relh. *Cant.* 241. Sibth. *Ox.* 193.

P. palustris rubra elatior. Raii *Syn.* *284.

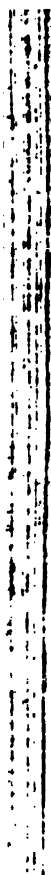
BY no means unfrequent in boggy meadows, flowering in June and July. We believe it to be, as most authors assert, perennial; though both this and the following are marked as annuals in Ray's Synopsis.

Root small. Stem solitary, erect, 12 to 15 inches high, angular, consisting of one principal branch and many smaller spreading lateral ones, which spring irregularly from the bottom to the top. The angles are hairy. Leaves scattered, here and there opposite, bipinnatifid and notched; the segments obtuse, varying much in breadth, their margins often recurved. Flowers axillary, solitary, on short flower-stalks, purple, very handsome. Calyx inflated, ovate, ribbed, hairy, its margin divided perpendicularly into two leafy lobes, very much cut and notched; but this part can scarcely be said to be 5-lobed, as the Linnæan generic character requires. Corolla ringent; the tube white; upper lip much compressed, vaulted, purple with a deeper stain at the summit, tipped with 2 minute teeth, but scarcely emarginate; lower lip oblique, in 3 large spreading purple lobes, each streaked with a red line, and minutely fringed with white. Stamina inserted into the bottom of the tube. Germen ovate. Style incurved. Stigma simple. Capsule ovate, compressed, when ripe projecting, with its sharp oblique beak, beyond the permanent calyx. Partitions contrary to the valves. Seeds about 5 or 6 in each cell. We have spent a great deal of time to no purpose in looking for the tunic of the seeds, mentioned by Linnæus, and we find Gærtner denies its existence, at the same time describing a minute membranous appendage in *P. verticillata*, which may perhaps have been what Linnæus had seen more conspicuous in other species.

P. palustris is an acrid useless weed, which cattle will not touch.



Malva sylvestris L.





PEDICULARIS *sylvatica*.

Pasture Lousewort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* (mostly) with 5 clefts. *Caps.* pointed, oblique, with 2 cells. *Seeds* few, angular, pointed.

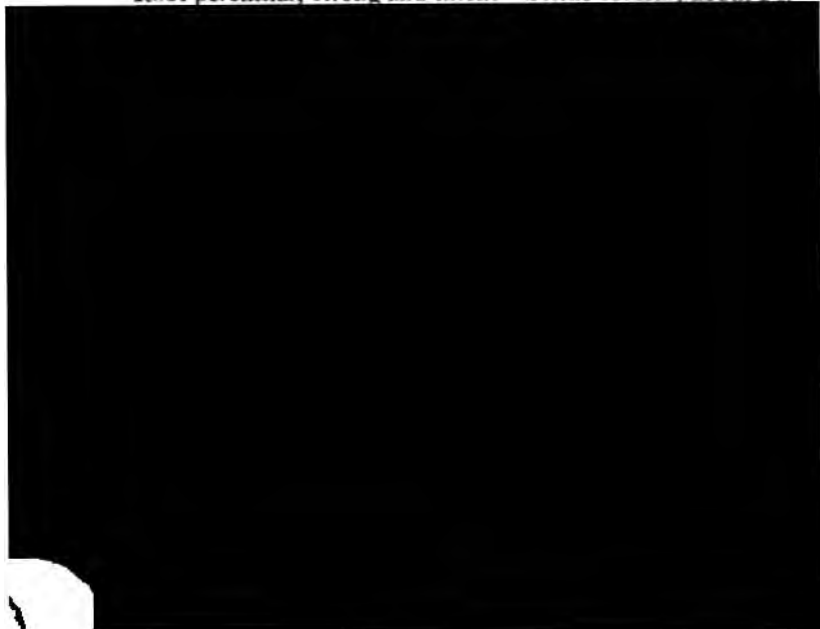
SPEC. CHAR. Stems several, spreading, simple. Calyx oblong, angular, smooth, in five unequal notched segments.

SYN. *Pedicularis sylvatica.* *Linn. Sp. Pl.* 845. *Huds. Fl. An.* 271. *With. Bot. Arr.* 644. *Relh. Cant.* 241. *Sibth. Ox.* 194.

P. pratensis rubra vulgaris. *Raii Syn.* *284.

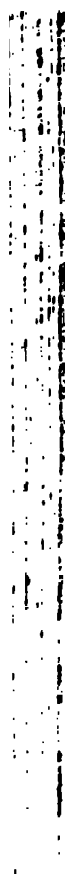
RATHER more frequent with us than the last, inhabiting moist pastures and heaths in hilly situations chiefly, and flowering in June and July. It is remarkable that this is, according to Mr. Davall, extremely rare in Switzerland, where so many magnificent species of *Pedicularis*, total strangers to Britain, abound.

Root perennial, strong and thick. Stems several, about 3 or





Reg. 7707. *Malva* by J. Smooty & Co.





ANTIRRHINUM Cymbalaria.

*Ivy-leaved Snapdragon.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* five-leaved. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* two-celled.

SPEC. CHAR. Leaves heart-shaped, five-lobed, alternate, smooth. Stems procumbent.

SYN. *Antirrhinum Cymbalaria*. *Linn. Sp. Pl.* 851. *Huds.* 271. *With.* 549. *Relk.* 242. *Sibth.* 194. *Curt. Lond. fasc.* 1. t. 45.

*Linaria hederaceo folio glabro, seu Cymbalaria Raii Syn.** 282.

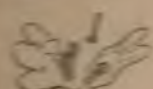
Cymbalaria italica. Ger. em. 529. fig. reversed.

ALTHOUGH originally introduced into gardens from Italy, this elegant little plant has long been perfectly naturalized with us upon old walls about the shores of the Thames, as well as at Oxford, Cambridge, and in short wherever there are any

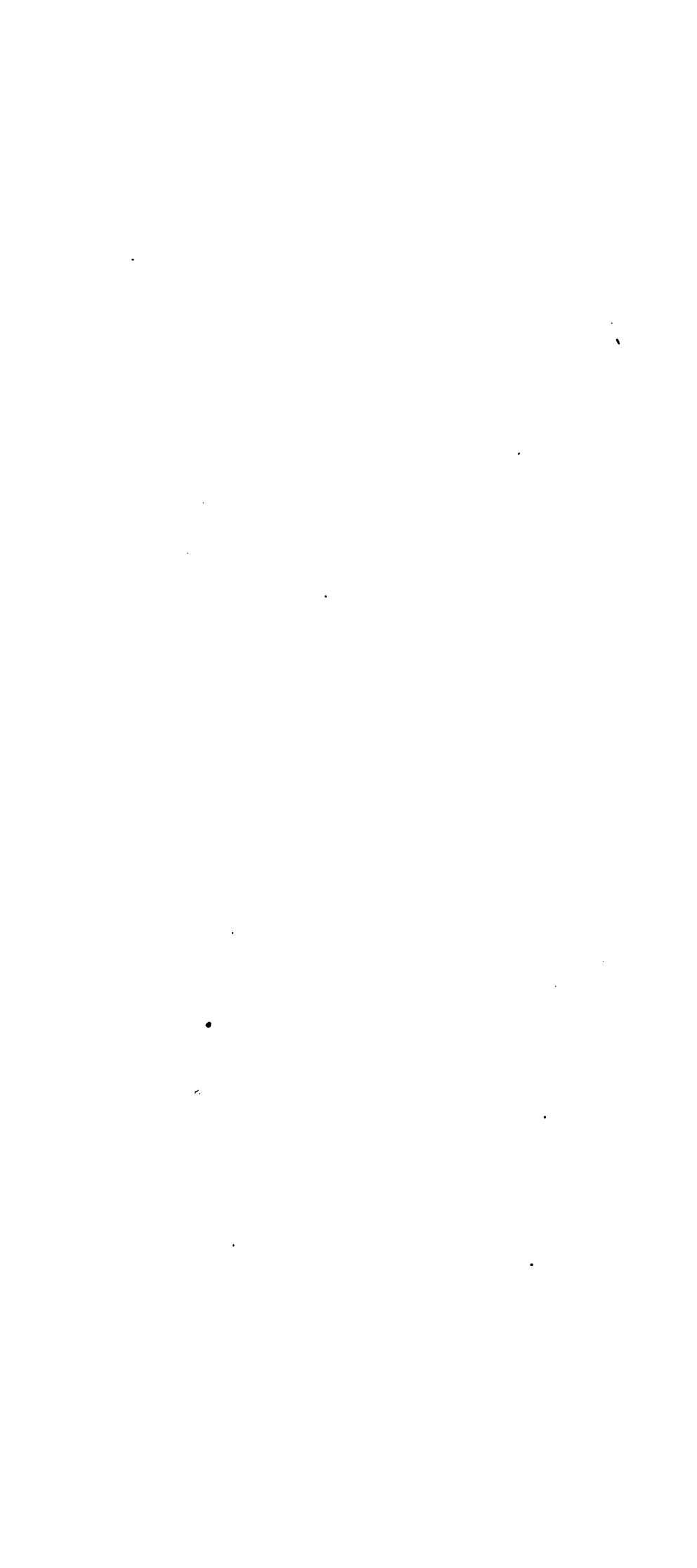




Asplenium adnigrum







ANTIRRHINUM spurium.

Round-leaved Fluellin.

DIDYNAMIA Angiospermia.

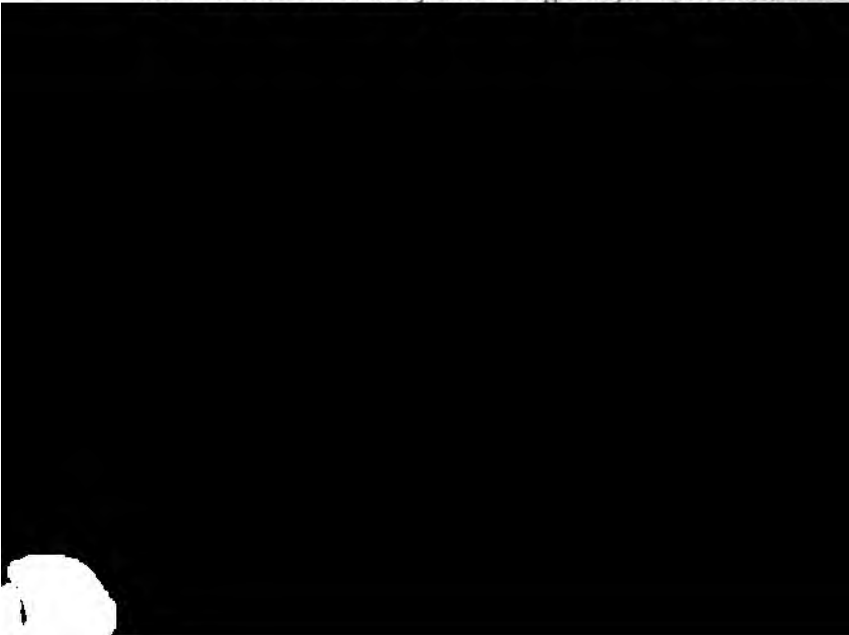
GEN CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Capf.* 2-celled.

SPEC. CHAR. Leaves ovate, alternate. Stems procumbent.

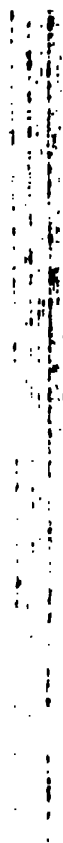
SYN. Antirrhinum spurium. *Linn. Sp. Pl.* 851. *Sm. Fl. Brit.* 657. *Huds.* 272. *Witb.* 549. *Hull.* 138. *Relb.* 242. *Sibth.* 194. *Abbot.* 137. *Curt. Lond. fasc.* 3. t. 37.

Linaria Elatine dicta, folio subrotundo. Raii Syn.
*282.

GATHERED in Shepey island September 24, 1797, on the high cliffs next the sea, where corn fields had lately been, but which are continually crumbling away. Mr. Curtis has









ANTIRRHINUM *Elatine.*

Sharp-pointed Fluellin.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves halberd-shaped, alternate. Stems procumbent.

SYN. *Antirrhinum Elatine.* *Linn. Sp. Pl.* 851. *Sm. Fl. Brit.* 658. *Hudsf.* 271. *With.* 549. *Hull.* 138. *Relb.* 242. *Sibth.* 195. *Abbot.* 137. *Curt. Lond. fasc.* 1. t. 46.

Linaria Elatine dicta folio acuminato. Raii Syn.
*282.

FOUND with the preceding at Shepreth by Mr. Sowerby. It





Mimulus lewisii Nutt.



ANTIRRHINUM repens.
Creeping Pale-blue Toadflax.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves linear, glaucous, whorled or scattered. Stem paniced. Calyx smooth, the length of the spur.

SYN. *Antirrhinum repens.* *Linn. Sp. Pl.* 854. *Sm. Fl. Brit.* 658. *Huds.* 272. *With.* 550. *Hull.* 199. *Sibth.* 414. *Dicks. Dr. Pl.* 75. *H. Sicc. fasc.* 17. 18.

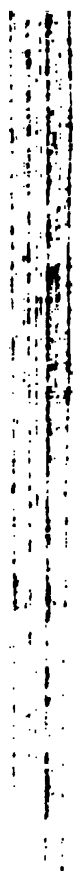
A. monspessulanum. *Linn. Sp. Pl.* 584.

Linaria cærulea, foliis brevioribus et angustioribus.
Raii Syn. *282: also *L. odorata Monspessulana.*
Ibid.

A RARE inhabitant of chalky banks, hitherto observed in but few parts of our island. Ray had it from Cornwall (where it still grows) and from Hertfordshire. It abounds on Henley hill, Oxfordshire; and we are informed by the Rev. Mr. Butt and by Mr. Dillwyn that it is plentiful about Llandovery and Llangaddock, South Wales. It flowers from July to September, diffusing a very sweet fragrance in some states of the atmosphere, but not at all times.



Dec: 1 1868 Published by J. S. Edwards, London.



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ANTIRRHINUM Linaria.

Yellow Toad-flax.

DIDYNAMID Angiospermia.

GEN. CHAR. *Cal.* 5-leaved. *Cor.* with a prominence at its base pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves linear-lanceolate, crowded. Stem erect. Spikes terminal. Flowers imbricated. Calyx smooth, shorter than the spur.

SYN. Antirrhinum Linaria. *Linn. Sp. Pl.* 859. *Huds.* 273. *Witb.* 551. *Hull.* 139. *Relb.* 243. *Sibth.* 195. *Abbot.* 138. *Curt. Lond. fasc.* 1. t. 47. *Mart. Fl. Rusf.* t. 93. *Woodv. Suppl.* t. 221.

Linaria lutea vulgaris. *Raii Syn.* *281.

THE uniformity of our plan requires the exhibition of this plant in a natural state, though we have already figured its curious variety the *Peloria*, t. 260. We have the less reluctance to add ours to the many plates of *A. Linaria* already existing,





Verbena officinalis L.

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Small dot or mark.



ANTIRRHINUM *Linaria*, var. *Peloria*.
Deformed Yellow Toad-flax.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* five-leaved. *Cor.* with a prominence at its base pointing downwards and bearing honey. *Cups.* two-celled.

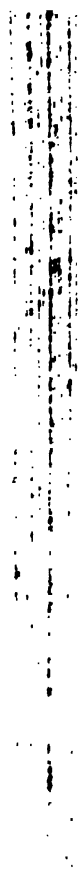
SPEC. CHAR. Leaves linear-lanceolate, crowded. Stem erect. Spikes terminal. Flowers imbricated. Calyx smooth.

β Flowers regular, with 5 equal stamina and 5 nectaries.

SYN. *Antirrhinum Linaria*, *Peloria*. *Linn. Sp. Pl.* 859. *Huds. Fl. An.* 273. *With. Bot. Arr.* 648. *Curt. Fl. Lond. fasc.* 6. t. 41.

WE received a living specimen of this singular variety or monstrosity from the garden of Mr. Ordoyno at Newark, who obtained the root wild from a wood in Lincolnshire. Mr. Curtis had it from the same source, and informs us it increases much by root, and sometimes bears seeds. Whether the plants which they produce likewise bear monstrous flowers, is as yet unknown; but it is probable they would not, varieties of structure being far less frequently propagated by seed than varieties of colour. All ideas of this being a mule production, much less of a living one, are now excluded. Dr. Smith and others





[2014]

ANTIRRHINUM minus.

*Least Snapdragon.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves lanceolate, obtuse, downy, mostly alternate. Stem much branched, spreading. Calyx longer than the spur.

SYN. *Antirrhinum minus.* Linn. *Sp. Pl.* 852. Sm. *Fl. Brit.* 660. Huds. 272. With. 551. Hull. 139. ed. 2. 182. Relh. 245. Sibth. 195. Abbot. 137. Curt. Lond. fasc. 5. t. 41. Dicks. *H. Sicc.* fasc. 6. 17.

Linaria Antirrhinum dicta. Raii Syn. *283.

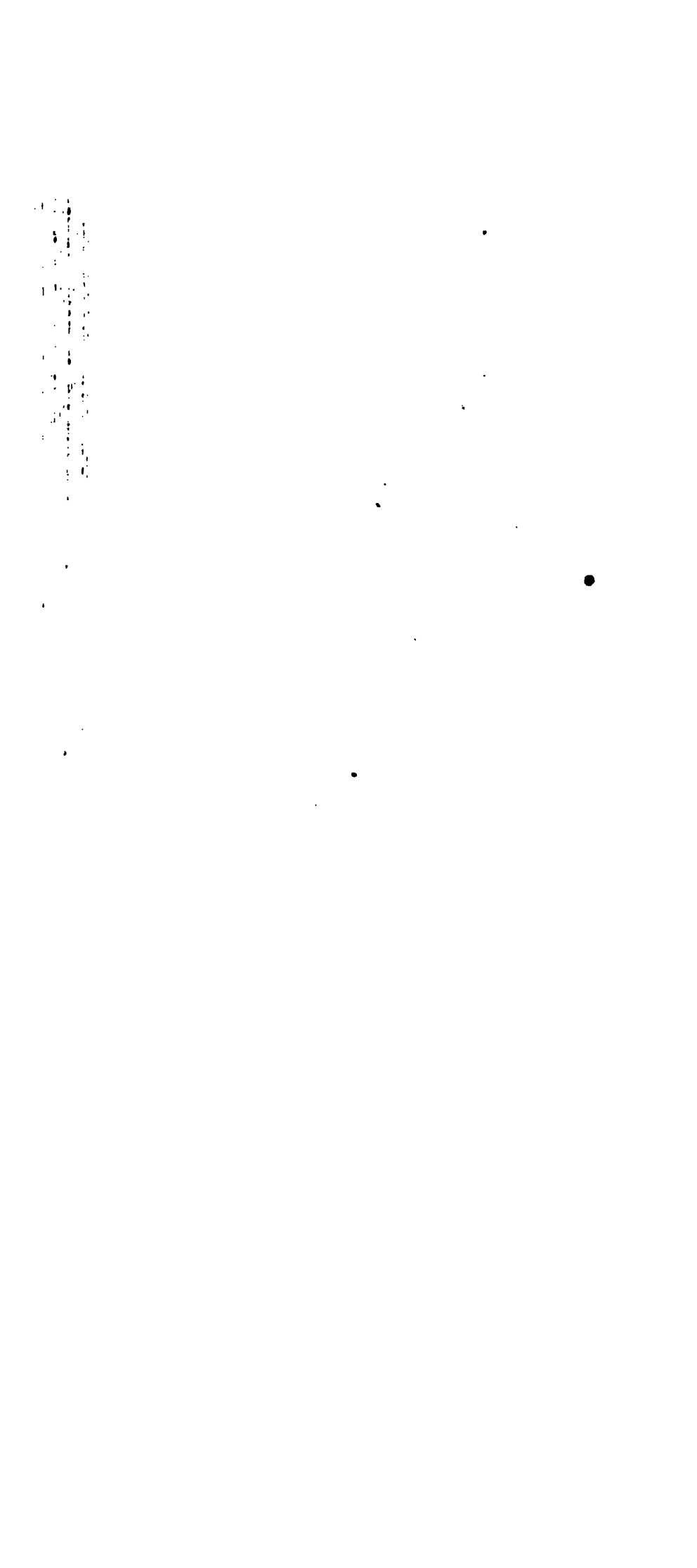
THIS, the only known British *Antirrhinum* which we have not yet presented to our readers, is an annual native of sandy cultivated fields, flowering from June to September. The Rev. Mr. Leathes has sent it from Bury, Mr. Wigg from Yarmouth, and we have gathered it about Battersea, where Mr. Curtis likewise observed it to grow.

Root small, zigzag. Stem upright, more or less branched, various in height and luxuriance, round, downy, leafy. Leaves linear-lanceolate, entire, obtuse, downy and clammy; the lowermost often opposite, and broadest. Flowerstalks numerous, axillary, solitary, simple, about the length of the leaves. Flowers small and inconspicuous, though of no inelegant appearance when magnified, being purplish, with a white three-cleft under lip, and yellow palate. The spur is much shorter than the other part of the corolla. Segments of the calyx unequal, spatulate, covered, like the stalks and leaves, with prominent viscid hairs. Capsule ovate, obtuse, compressed, 2-lobed, opening at length by a jagged orifice as in others of this genus. Seed curiously furrowed, that part affording exquisite specific characters, if wanted, among the annual kinds of *Antirrhinum*.

2016



Original published by J. E. Smith, London





ANTIRRHINUM majus.

Great Snapdragon.

GEN. CHAR. *Cal.* 5-leaved. *Cor.* with a prominence at its base pointing downwards and bearing honey. *Capsule* two-celled.

SPEC. CHAR. Corolla not elongated into a spur. Flowers spiked. Capsules roundish.

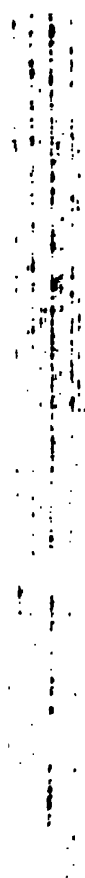
SYN. *Antirrhinum majus.* *Linn. Sp. Pl.* 859. *Hudsf. Fl. An.* 274. *Wub. Bot. Arr.* 650. *Relb. Cant.* 243.

GATHERED on walls at Greenwich, where, as in other places in Kent, and about many of the older towns in the south and east parts of England, this magnificent species of *Antirrhinum* may be found in abundance, flowering from the end of May to the middle of July, or later. Ray has omitted this plant, and Mr. Hudson has marked it with an asterisk, both considering it as of foreign origin; an idea which its being only occasionally perennial with us, though now perfectly naturalized, seems to justify.

Root fibrous, producing a tuft of short spreading leafy stems.















SCROPHULARIA nodosa.

*Knotty-rooted Figwort.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* 5-cleft. *Cor.* somewhat globose, reversed. *Caps.* superior, 2-celled.

SPEC. CHAR. Leaves heart-shaped, acute, with three ribs at the base. Stem sharp-edged.

SYN. *Scrophularia nodosa.* *Linn. Sp. Pl.* 863. *Sm. Fl. Brit.* 663. *Huds.* 274. *With.* 553. *Hull.* 138. *Relh.* 246. *Sibth.* 196. *Abbot.* 138.

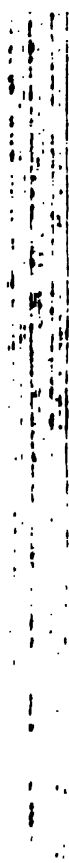
S. major. *Raii Syn.* *283. *Ger. em.* 716.

COMMON in shady rather dry places, about hedge bottoms and in groves, flowering in July and August.

Root perennial, whitish, thick and tuberous, beset with little knobs. Stem 2 or 3 feet high, upright, simple, leafy, furnished with 4 sharp angles, smooth. Leaves opposite, on footstalks, heart-shaped, acute, serrated, smooth, of a shining dark green above, paler beneath, veiny, with one principal rib, and 2 smaller ones at the base which run a little way along the margin, affording an example of what Linnæus denominates "a leaf 3-nerved at the base." Flowerstalks axillary and terminal, forked, angular and glandular, each bearing a pair of lanceolate bractæ, and all together combining to form a compound upright cluster. The calyx, as well as the summit of each flowerstalk, is smooth. Corolla dull green, with a livid purple lip. Capsule ovate and pointed, longer than in *S. aquatica*, *t.* 854.

Every part of the plant is very foetid when bruised, resembling Elder in scent. It is reported to be good for scrophulous diseases, whence the generic name; but we are not certain how far the form of the root might suggest its use in glandular swellings. A medical botanist must always be on his guard against whim, superstition and quackery.





SCROPHULARIA aquatica.

*Water Figwort.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* 5-cleft. *Cor.* somewhat globose, reversed. *Caps.* superior, 2-celled.

SPEC. CHAR. Leaves heart-shaped, on foot-stalks, decurrent, blunt. Stem winged.

SYN. *Scrophularia aquatica.* *Linn. Sp. Pl.* 864. *Sm. Fl. Brit.* 663. *Huds.* 275. *With.* 554. *Hull.* 138. *Relb.* 244. *Sibth.* 196. *Abbot.* 138. *Curt. Lond. fasc.* 5. *t.* 44.

S. aquatica major. *Rau Syn.* *283.

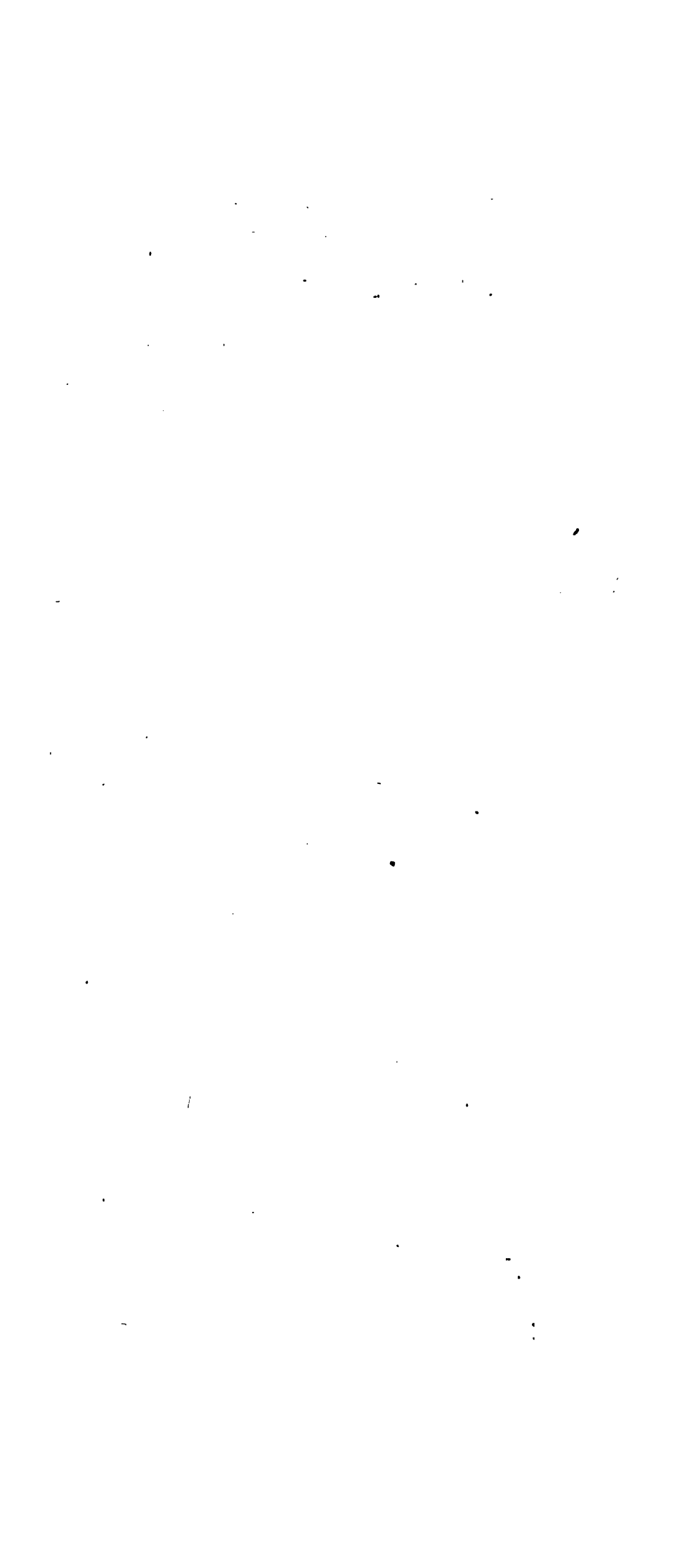
A NATIVE of watery places, as alder-swamps, margins of pools and rivers, &c. not uncommon in England, though very rare in Scotland. It is perennial, and flowers after midsummer.

Root fibrous, not knotty as in the upland *S. nodosa.* Stem





Scrophularia tuberosa L. *Scrophulariaceae*



SCROPHULARIA Scorodonia.

*Balm-leaved Figwort.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* 5-cleft. *Cor.* somewhat globose, reversed. *Caps.* superior, 2-celled.

SPEC. CHAR. Leaves heart-shaped, doubly serrated, downy beneath. Cluster leafy.

SYN. *Scrophularia Scorodonia.* *Linn. Sp. Pl.* 864. *Sm. Fl. Brit.* 664. *Huds.* 275. *With.* 553. *Hull. ed.* 2. 183. *Dicks. H. Sicc. fasc.* 15. 9.

S. Scorodonæ folio. *Raii Syn.** 283.

FIRST remarked by Sherard at the sides of rivulets between the port and St. Hilary, Jersey, and since by Mr. Edward Lhwyd about St. Ives in Cornwall. In the latter station Hudson, Dickson and others have gathered this plant, which is scarcely met with elsewhere in Britain. We have been obliged to draw a garden specimen, which differs in no respect from wild ones. It is perennial, and flowers in July and August.

The stems are 2 or 3 feet high, or more, square, leafy, branched, covered with soft spreading hairs. Leaves stalked, heart-shaped, various in size and length, acute, doubly serrated, veiny, 3-nerved at the base as in *S. nodosa*, *t.* 1544, clothed all over, but most abundantly at the back, with soft downiness. Flowerstalks axillary and terminal, doubly forked; the upper ones alternate; all together constituting a terminal, upright, leafy, downy cluster. Flowers paler than in most of this genus. Calyx downy, obtuse. Capsule smooth, roundish or ovate, pointed. Seeds numerous, angular.

This is scarcely to be seen but in curious botanic gardens, having no beauty nor any other quality to recommend it to general notice.



Illustrated by J. Sowerby, London.

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SCROPHULARIA vernalis.

*Yellow Figwort.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* 5-cleft. *Cor.* somewhat globose, reversed. *Caps.* superior, two-celled.

SPEC. CHAR. Leaves heartshaped, doubly serrated, downy. Flower-stalks axillary, solitary, forked, leafy.

SYN. *Scrophularia vernalis.* Linn. *Sp. Pl.* 864. Hudf. 275. With. 554. *Fl. Dan.* t. 411.

S. flore luteo. Ger. *em.* 717.

THIS grows in shady moist places, but rarely, flowering in April and May, and the root is biennial. Mr. Sowerby gathered it near Bury, in company with Sir Thomas Cullum, and has also received wild specimens from a lane leading from Merton Abbey to Mitcham, Surrey, by favour of the Rev. Mr. Lyfons, the learned and elegant illustrator of the environs of London.

Stem hairy, about two feet high, square or five-angled, and in the latter case the leaves grow three together, as Linnæus in his manuscripts defines them; but they are full as often opposite. They are heartshaped, pointed, sharply and doubly serrated, veiny, most hairy beneath, and stand on footstalks. Flower-stalks axillary, about as long as the leaves, solitary, forked, bearing many flowers accompanied by serrated or entire bractæ. Calyx hairy. Corolla inflated, yellow, contracted at the mouth. Capsule ovate, acute, with many minute seeds.

It is curious to observe a certain resemblance or affinity between this plant and the pretty Peruvian genus of *Calceolaria*, one species of which, the *pinnata*, is now frequent in our gardens; the fruit and seeds, the calyx, the habit and hue of the whole plant, strikingly agree: and there is another species, *C. ovata*, between which and this *Scrophularia* the conformity is still greater; so that a somewhat different form of corolla, and the *Calceolaria* having but 2 stamina, are their only generic distinctions. In every thing else they are very much nearer akin than this and other species of *Scrophularia*.



Salvia pyramidalis L. f. *Salvia* L.

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DIGITALIS purpurea.

*Purple Foxglove.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* in 5 segments. *Cor.* bell-shaped, five-cleft, inflated. *Caps.* ovate, of 2 cells, with many seeds.

SPEC. CHAR. Segments of the calyx ovate, acute. Corolla obtuse; its upper lip undivided. Leaves downy.

SYN. *Digitalis purpurea.* *Linn. Sp. Pl.* 866. *Sm. Fl. Brit.* 665. *Huds.* 275. *With.* 555. *Hull.* 138. *Sibth.* 197. *Abbot.* 139. *Curt. Lond. fasc.* 1. t. 48. *Woodv. Med. Bot.* t. 24. *Raii Syn.* * 283.

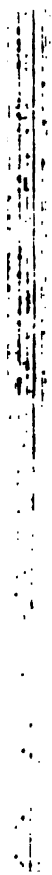
THE "stately and elegant" Foxglove, as Mr. Curtis, with his usual taste for the genuine beauties of Nature, denominates it, is most abundant in the northern and rather hilly parts of Great Britain, growing about hedges and thickets, on a dry chalky, loamy, or gravelly soil, flowering in June and July. In Norfolk and Suffolk it rarely, if ever, occurs; but is found about Charlton and other parts of Kent. In gardens it is often cultivated, especially the white variety, which, however, is less handsome than the red one.

Root biennial, fibrous. Stem upright and wand-like, leafy, roundish, downy, 3 or 4 feet high. Leaves alternate, on foot-stalks which are often winged; the leaf itself is ovate, crenate, downy, rugged and veiny; the radical ones largest. Spike terminal, erect, simple, formed of a great number (sometimes 60) of large, pendulous, scentless flowers, each on a short round stalk accompanied by a bractea. The calyx is soft and downy. Corolla an inch and half long, tubular, or rather bell-shaped, of a rich purplish crimson, elegantly speckled, and somewhat hairy, within; its margin slightly lobed. Stamina springing from the tube, bent, with large, smooth, 2-lobed incumbent antheræ. Stigma cloven. Capsule superior, ovate, 2-celled, full of innumerable small seeds.

Foxglove has of late been much used in medicine to allay irritability and retard the pulse, from which properties it is useful in incipient consumptions. It has for some years been celebrated in dropsies, and Dr. Withering's book on the subject is well known.

How extraordinary is it that no old original English name should be known for so striking a plant! That in present use is derived from *Digitalis Fuchsii*, Fuchs's Glove; Fuchs or Fuchsius having first named it *Digitalis*. In Yorkshire it is called Foxes' Gloves.







L I N N Æ A borealis.

*Two-flowered Linnæa.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Calyx* double; that of the fruit 2-leaved; that of the flower in 5 divisions, superior. *Cor.* bell-shaped. *Berry* dry, 3-celled.

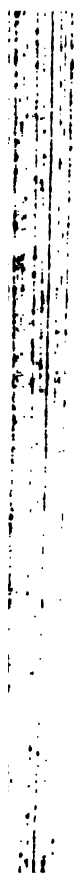
SPEC. CHAR.

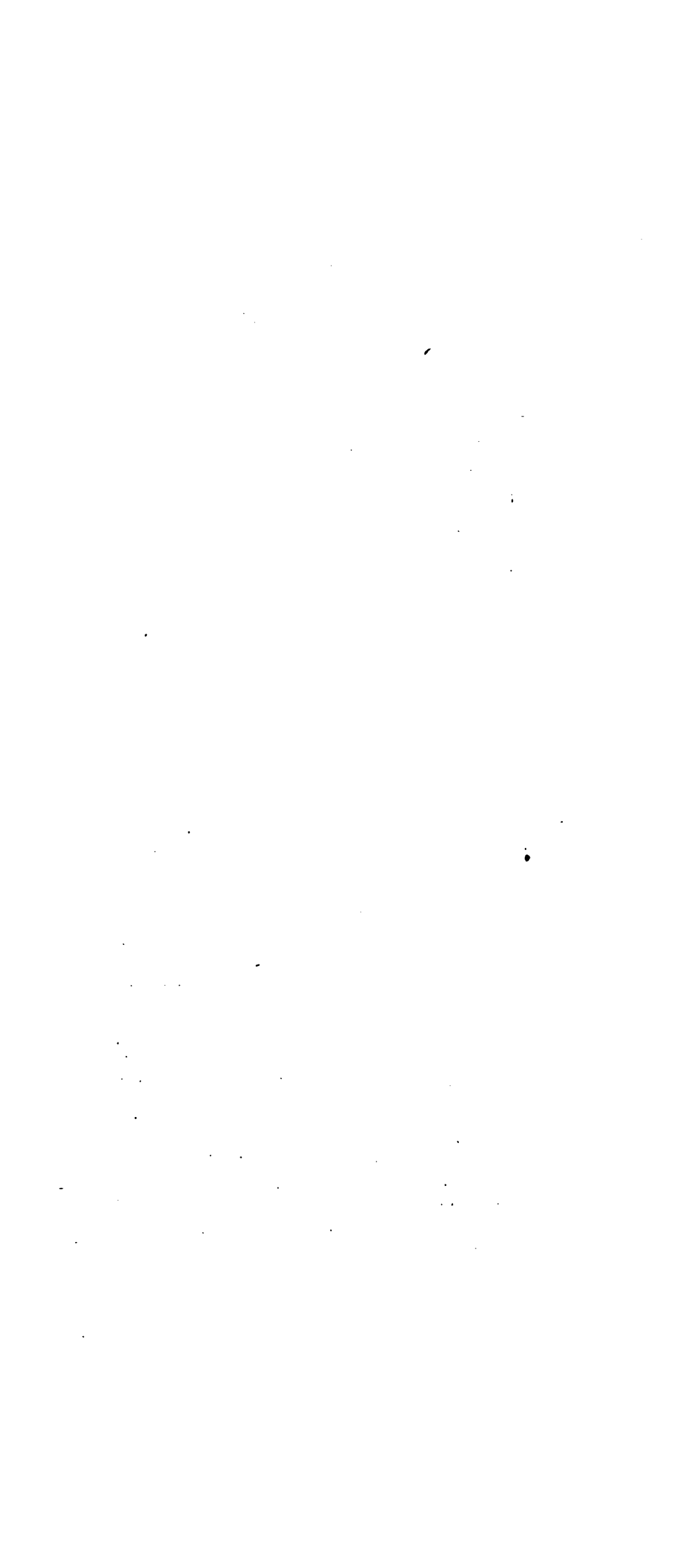
SYN. *Linnæa borealis.* *Linn. Sp. Pl.* 880. *Fl. Suec.* 219. *t. 1. Fl. Lapp. ed. 2.* 214. *t. 12. f. 4. Ait. Hort. Kew.* v. 2. 358. *Oed. in Fl. Dan. t. 3. Lamarch Fl. Franc.* n. 946. *Hall. Helvet. n. 299. Hoffm. Fl. Germ.* 221. *Trans. of Linn. Soc. v. 3.* 333. *With.* 556.

FOR this most interesting addition to the British Flora we are indebted to Professor James Beattie jun. of Aberdeen, who discovered it in an old fir wood at Mearns in that neighbourhood, and communicated wild specimens, along with an accurate coloured drawing, to the Linnean Society, June 2d, 1795. For the dissection of the flower only, which is a little magnified, we have been obliged to have recourse to a garden specimen. The *Linnæa* grows in dry stony mossy woods, flowering in May or June; and, as it has been found in Sweden, Germany, Switzerland, and the south of France, it seems wonderful that it should not long ago have been observed in Britain. This discovery, and some others we have of late had the pleasure of announcing, may encourage our domestic botanists to trust that the ardour and accuracy, in which they eminently excel those of most other nations, has not yet received its full reward, and that further acquisitions still remain to be made.

Root fibrous. Stems trailing, creeping, perennial, woody, round, leafy, a little branched, very long; the younger shoots slightly hairy. Leaves opposite, on footstalks, roundish or ovate, veiny, crenate in the forepart, paler beneath, with a few scattered hairs above. Flowering branches erect, 3 or 4 inches high, with a pair or two of leaves near the bottom, naked above, terminating in 2 equal flower-stalks with a pair of small leaves at their base, and each bearing one drooping flower accompanied by two small lanceolate bractææ. Outer calyx of 2, often 4, roundish concave leaves, closely embracing the germen, which is roundish and crowned by the inner calyx, which consists of 5 deep equal lanceolate segments, surrounding the tube of the flower. Corolla bell-shaped with a tapering pale tube, and 5 equal segments, stained, especially on the inside, with red and some yellow. Stamina 4, 2 of them half as long again as the others. Style thread-shaped, ascending. Stigma capitate, rough. Fruit a dry berry, with 3 cells, each containing 1 or 2 seeds. The flower-stalks, bractææ, germen and calyces are clothed with glandular viscid hairs. The flowers are said in the *Flora Suecica* to be very fragrant at night, smelling like the Meadow-sweet. Linnæus, in *Critica Botanica* p. 80, has traced a pretty fanciful analogy between his own early fate and this "little northern plant, long overlooked, depressed, abject, flowering early," and, we may now add, more honoured in its name than any other.

*Campanula*





SIBTHORPIA europæa.

Sibthorpia, or Cornish Money-wort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 divisions. *Cor.* 5-cleft, irregular. *Stam.* approaching each other in pairs. *Caps.* compressed, inversely heart-shaped, of 2 cells, with transverse partitions.

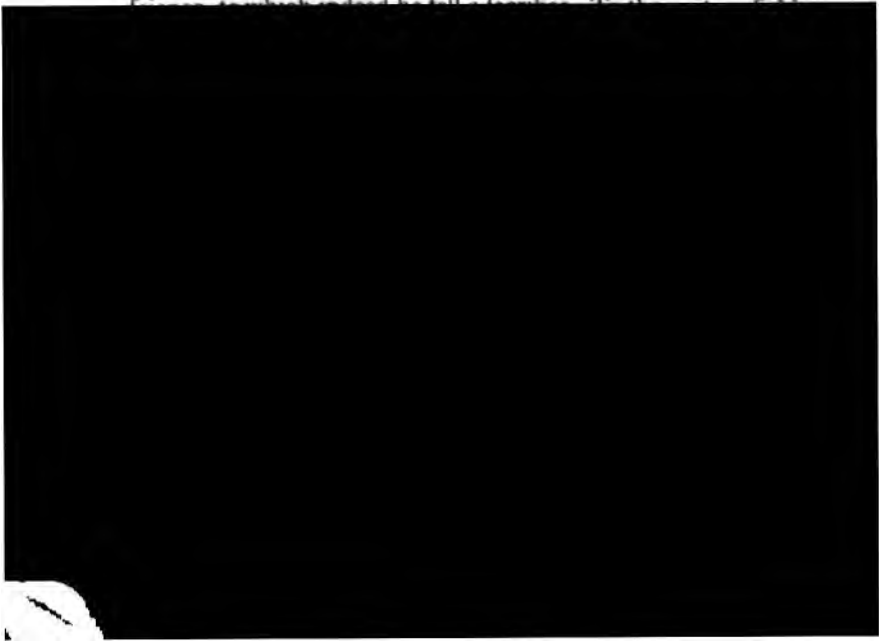
SPEC. CHAR. Leaves kidney-shaped, somewhat peltate, crenate.

SYN. *Sibthorpia europæa.* *Linm. Sp. Pl.* 880. *Huds.* 276. *Witb.* 556. *Hull.* 138. *Dicks. Dr. Pl.* 76.

S. prostrata. *Salisb. Ic.* 11. t. 6.

Alfina spuria pusilla repens, foliis Saxifragæ aureæ.
Raii Syn. 352.

THIS curious and most distinct genus was named by Linnaeus in honour of Dr. Humphrey Sibthorp, successor to Dillenius in the Botanic chair at Oxford. His son, the late Professor John Sibthorp, has richly earned his inheritance of the honour, by his indefatigable zeal in the pursuit of the same science, to which indeed he fully sacrificed his life.



649.







LIMOSELLA aquatica.

*Mudwort.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* five-cleft. *Cor.* five-cleft, equal.
Stamina approaching each other in pairs. *Caps.*
 with one cell, two valves, and many seeds.

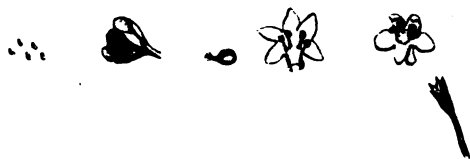
SPEC. CHAR.

SYN. *Limosella aquatica.* *Linn. Sp. Pl.* 881. *Huds.*
Fl. An. 276. *With. Bot. Arr.* 656. *Relh. Cant.*
 245. *Sibth. Ox.* 197.

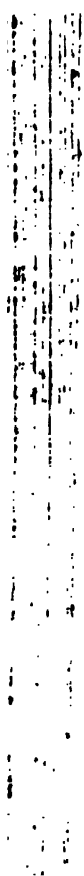
Plantaginella palustris. *Raii Syn.* 278.

FEW persons, except the scrutinizing botanist, observe this little plant, which occasionally occurs in muddy places where water has stagnated during the preceding winter. The Rev. Mr. Abbot sent it from Bedfordshire, flowering in the middle of July.

The root is annual, throwing out naked cylindrical prostrate runners, which take root at their extremities, and form new plants. Leaves radical, on long foot-stalks, spatulate, smooth, entire; we have not found them involute. Flowers small, radical, on simple flower-stalks, which become inflexed as the fruit ripens. Segments of the calyx sharp, the 2 uppermost least deeply divided. Corolla with a swelling tube; the limb in 5 equal segments, whitish without, red on the inside, the 2 uppermost of which are a little inflexed. Stamina ascending, divaricated in pairs towards each side of the flower. Style declining, with a blunt rough stigma. Capsule globular, with a groove along its upper side. Seeds very numerous.



1294. *Ruellia nudiflora* (Lam.) DC.





OROBANCHE major.

*Greater Broom-rape.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Caps.* of 1 cell, with 2 valves, and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple. Corolla inflated; its upper lip undivided; lower in three equal segments. Stamina smooth. Style downy.

SYN. *Orobanche major.* *Linn. Sp. Pl.* 882. *Huds. Fl. An.* 265. *With. Bot. Ar. ed.* 3. 557. *Relh. Cant.* 237. *Sibth. Ox.* 191. *Curt. Lond. fasc.* 4. t. 44.

O. major *Garyophyllum olens.* *Rail Syn.* 288*.

FOUND not unfrequently on shrubby hills over-run with broom and furze, on the roots of which it grows parasitically flowering in June or July.

The stem is simple, erect, straight, angular, downy, very juicy, clothed with scattered, upright, lanceolate, leafy scales; its base swelling into a bulbous form, which is still more scaly, and throws out several radicles, by which the plant is attached to, and nourished from, the shrub on which it grows, and it is to all appearance perennial. Flowers sessile, in a terminal, rather close-set, upright spike, the whole being of a dull purplish yellow hue, clothed with rusty downiness, and soon turning altogether brown and withered, in which state the plant remains a considerable time. Bractæ solitary, lanceolate, mostly shorter than the flowers. Calyx of 2 lateral leaves, each of which is deeply cloven into 2 nearly equal, lanceolate, acute segments. Corolla ventricose or inflated, a little incurved, carinated at the back; its upper lip perfectly undivided, with a reflected waved margin; the lower lip in 3 dependent lobes, which are equal, acute, more or less undulated, and sometimes almost crenate. Stamina rather shorter than the tube, channelled at their base on the inside, and perfectly smooth, or void of all pubescence, in their lower part, though a little glandular just under the antheræ. Style downy. Stigma of two yellow separate globules.

We are now persuaded that the foreign *Orobanche* distinguished by Bauhin as smelling of cloves, which ours does not, is a distinct species, its stamina being very hairy at the base, which in this genus seems an important mark. See *Sketch of a Tour on the Continent*, v. ii. 308.





OROBANCHE elatior.

Tall Broom-rape.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Capf.* of 1 cell, with 2 valves, and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple. Corolla tubular; lower lip in three acute equal segments. Stamina downy. Style smooth.

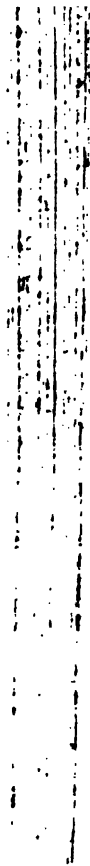
SYN. *Orobanche elatior.* *Sutton Tr. of Linn. Soc. v. 4. 178. t. 17.*

THE Rev. Mr. Sutton, of Norwich, first observed and well ascertained this species, and he has favoured us with the use of the original drawing, made under his inspection, in order to complete our history of the genus as far as it is known in England.

The *O. elatior* has hitherto been confounded with the *major*, *t. 421*, for it occurs full as frequently as that in fields, thickets, and hilly bushy places on a gravelly soil, flowering in July



Asclepias tuberosa L. f. *Asclepias* L.





OROBANCHE minor.
Lesser Broom-rape.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Caps.* of 1 cell with 2 valves and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple, Corolla tubular; its upper lip undivided; lower in three curled segments, of which the middle one is lobed. Stamina ciliated. Style smooth.

SYN. *Orobanche ramosa* β. *Huds. Fl. An.* 266.

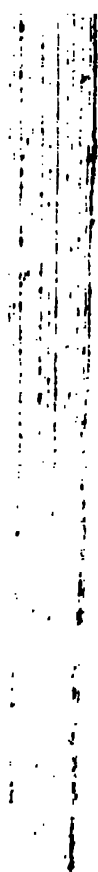
O. flore minore. Raii Syn. 288 *.

THIS plant is found very copiously on various parts of Norfolk, on fields of clover for the most part, to the roots of which it seems to be attached, flowering in July. We have for above 15 years past considered it as a distinct species from *O. major*, as it unquestionably is from *ramosa*; and the genus having of late been more studied and better understood, several respectable Botanists have assented to our opinion, particularly the Rev. Mr. Sutton of Norwich, who has paid considerable attention to it, and who favoured us with this specimen last year from near Sheringham.

It is much smaller in all its parts than the last, and more purplish (though sometimes found entirely of a pale yellow by Mr. Sutton,) and the stem is more inclined to be zigzag. Bractæ solitary. Flowers tubular, scarcely at all ventricose. Calyx-leaves more unequally divided, though that mark is not absolutely invariable. Upper lip of the Corolla undivided, at least till it splits by age or violence; lower in lip in three segments, which are more obtuse and undulated than in *O. major*, the middle one being larger than the rest and more or less perfectly three-lobed. The most important and permanent character, however, consists in the stamina being in their lower part thickly ciliated with projecting hairs, which we have never found to vary, while the style on the contrary is smooth. Stigma purple.

We think there can be no doubt that our *O. minor* is the *O. flore minore* of Dillenius, in Ray's Synopsis, as above quoted, found by Mr. Rand in Kent. Our late worthy friend, Mr. Jacob Rayer, observed it plentifully in that county. It seems to be the plant intended under the same denomination by John Bauhin, but we have some doubt of its being the *Orobanche prima* of *Tabernæ-montanus*.







[1786]

OROBANCHE rubra.

Red Fragrant Broom-rape.

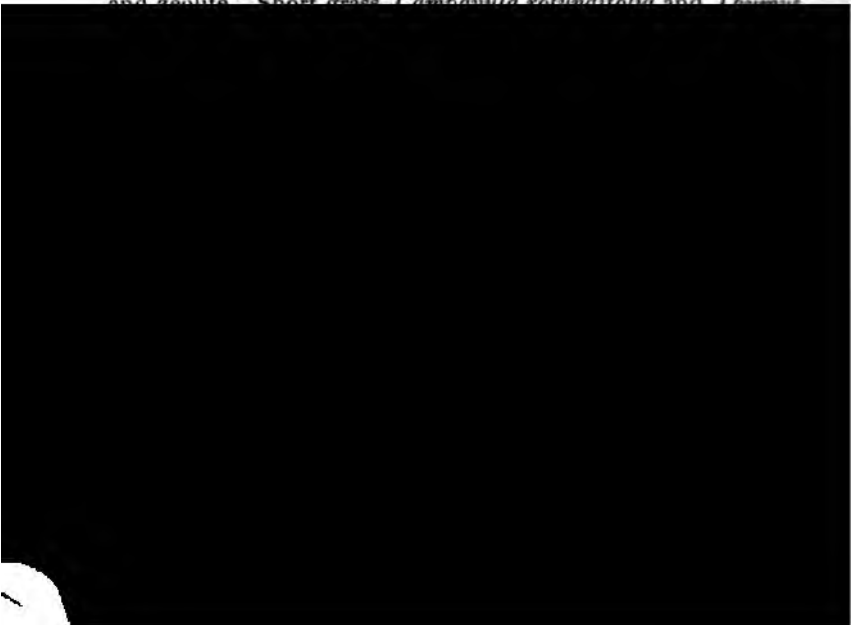
DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Caps.* of 1 cell, with 2 valves, and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple. Corolla tubular; its upper lip cloven; lower in three nearly equal segments. Stamina fringed on one side at the base, germen and style at their summits. Bractees solitary.

THIS curious species of *Orobanche*, which appears to be hitherto entirely undescribed, was discovered by John Templeton, Esq. growing plentifully on the basaltic rock at Cavehill near Belfast, in August 1805. We are obliged to that gentleman for a coloured drawing of it, exactly copied in our figure, and to Mr. Rees of Paternoster-row for specimens gathered at the same place by himself. Mr. Templeton observes that, though there are plenty of similar situations, he never found the plant but in the spot above mentioned.

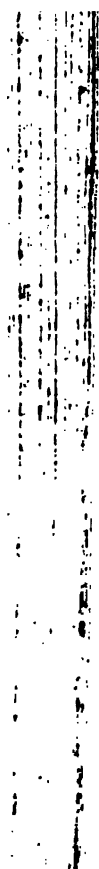
Roots creeping on the rock, and following the inequalities of its surface, covered with about 5 inches of decayed rock and zeolite. Short grass, *Campylopus rotundifolius* and *Thymus*



1786



Scitellus, published by J. C. Sowerby London





OROBANCHE *cærulea*.*Purple Broom-rape.*

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Caps.* of 1 cell, with 2 valves, and many seeds. A gland at the base of the germen beneath.

SPEC. CHAR. Stem simple. Corolla tubular; its upper lip cloven and notched; lower in three equal entire segments. Stamina smooth. Bractæa three.

SYN. *Orobanche cærulea*. Villars *Dauph.* v. 2. 406.

O. lævis. Lamarck *Flo. Franc.* v. 2. 327.

O. purpurea. Jacq. *Aust. t.* 276.

O. n. 294. Hall. *Hist.* v. 1. 129.

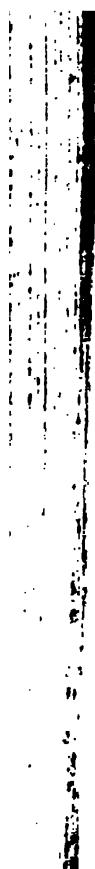
O. ramosa β. With. *Bot. Arr. ed.* 3. 558.

NO species of *Orobanche* has been less understood than this. We have reason to think it has been taken by many British Botanists for the *ramosa*. Linnaeus confounded its synonyms with those of some other very different plants under his *O. lævis*, the history of which we may one day give in another place; but the species before us, which Linnaeus did not know, can by no means be taken for his *lævis*, though Haller, Lamarck, and Villars guessed it to be so. Jacquin has described it anew by the name of *purpurea*, but there is another species so named in the *Suppl. Plant.* Ours might far more properly be named *violacea*, but to avoid unnecessary changes we call it *cærulea* with Villars. It grows in hilly pastures on the north coast of Norfolk, flowering in July. A single specimen was found in 1779 by a Mr. Scarles near Northreps, and several more last year near Sheringham by Mr. W. Skrimshire of Wisbeach; ours was gathered by the Rev. Mr. Sutton at Beeston, near Cromer.

This is in general more slender and less pubescent than either of the preceding, and of a darker and much more blue or purplish colour. Its flowers also are longer. The bractæa are three, one large external and two small internal ones, as we ought also to have described them in *O. ramosa*, t. 184. Calyx tubular at the base, the lobes of its segments nearly equal, subulate. Corolla palish violet, with an elevated downy white divided palate. Upper lip ascending, more or less deeply two-lobed, with a notch or two between the segments; lower lip of three equal ovate entire lobes, by no means fringed, undulated or plaited. Stamina smooth all the way up. Style a little downy.

— *Orobanche ramosa* differs essentially from this species in being almost always very much branched in the upper part of its stem, which is yellow, not purple, and in having its upper lip deeply lobed, without any teeth or notches between. In appearance also there is a manifest difference.







OROBANCHE *ramosa*.

Branched Brocm-rape.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* 2-lipped. *Cor.* ringent. *Capsf.* of one cell, with two valves, and many seeds. A gland at the base of the germen beneath.

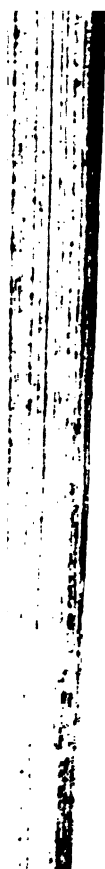
SPEC. CHAR. Stem generally branched. Corolla with five segments.

SYN. *Orobanche ramosa*. *Linn. Sp. Pl.* 882. *Huds. Fl. An.* 266. *With. Bot. Arr.* 658. *Raii Syn.** 288.

MR. WOODWARD, who has so admirably illustrated this rare plant in the *Bot. Arr.* and who is one of the few people who have found it since Ray's time, was so obliging as to send us this recent wild specimen from a field at Mettingham in Suffolk, in which neighbourhood it grows plentifully, attached to the roots of hemp in a parasitical manner, and flowers in August.







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